AMERICAN

RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

HENRY V. POOR, *Editor.*

ASSISTANT EDITORS:
JAMES T. HODGE, *For Mining and Metallurgy.*
CHARLES T. JAMES, *For Manufactures and the Mechanic Arts.*

SATURDAY, NOVEMBER 23, 1850

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CAUTION

TO RAILROAD COMPANIES AND CAR MANUFACTURERS.

THE PATENT OFFICE having decided in favor of F. M. Ray as the first and true inventor of the India-rubber Railroad Spring, and against W. C. Fuller, who had claimed the same as his invention, and at whose instigation and that of Horace H. Day (who has manufactured the metallic or vulcanized rubber for such springs), several Railroad Companies have infringed, not only upon the rights of the said F. M. Ray, and rendered themselves liable for large damages, but also upon the patent rights of Charles Goodyear, against all of whom suits for damages for infringement will be commenced, in the event of failure to recover compensation speedily against Horace H. Day, against whom several suits are now pending:—all Railroad Companies are cautioned against infringing or pirating upon the said patent rights of said Charles Goodyear, or of F. M. Ray, by the use of such India-rubber car springs, and for all future infringements, actions will be immediately commenced.

Annexed is a copy of the official certificate from the Commissioner of Patents:

COPY.

U. S. PATENT OFFICE, WASHINGTON, D. C.,
12th September, 1850.

Sir—You are hereby informed that in the case of the interference between your claims and those of W. C. Fuller, upon which a hearing was appointed to take place on the second Monday in August, *the question of priority of invention has been decided in your favor.* I enclose a copy of the decision.

The testimony in the case is now open to the inspection of those concerned.

Yours respectfully,
Signed DELLITT C. LAWRENCE,
Acting Commissioner of Patents.

To Mr. Fowler M. Ray,
C. M. Keller, Esq., New York.

In conformity with the above decision, a Patent has been granted to me for the same invention for which Fuller had obtained a Patent dated October 8, 1850, and a bill has been filed in the U. States Circuit Court to repeal the Patent granted to Fuller.

In answer to the above, Mr. Knevitt states in his Advertisement in effect that Mr. Ray obtained his patent by *bribing the Commissioner.*

When a case has become so bad that parties in their desperation in defense of themselves are compelled, as a last resort, to attack the character of a person holding an office of such high honor and trust as that of Commissioner of Patents of the U.S., what reliance can be placed upon any of their statements? The character of the Hon. Mr. Ewbank, Commissioner of Patents, stands too high with the public to require any defense at my hands; and all attempts by Knevitt or Day to escape from the charges of having tried to deceive the public and railroad companies, by aspersing the character of Mr. Ewbank, and insinuating that he has been improperly biased or influenced in deciding against W. C. Fuller, and in my favor as the first and original inventor of the spring in question—will only recoil on themselves.

Now what was the question between Fuller and Ray thus decided in favor of Ray?

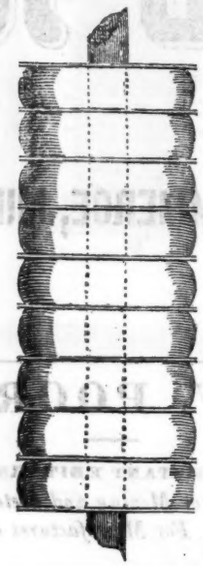
It was whether Fuller or myself was the first inventor of India-rubber springs, with metallic plates interposed.

On the 1st August, 1848, I obtained a patent for a form of spring, (about which there is no dispute) which consisted of a cylinder of India-rubber, with circular bands upon the outside circumference. This kind of spring in nineteen cases out of twenty, I may say, has been adopted as the best and most approved form of spring by railroad companies. The validity of this patent was not questioned in this controversy; but the question submitted to the Commissioner of Patents for his investigation and decision, and in respect to which a very large mass of testimony was taken, was whether W. C. Fuller or F. M. Ray was the first inventor of a form of spring, composed of alternate discs or rings of India-rubber, with metallic plates interposed, etc? That question has been decided *against* W. C. Fuller, an in *my favor, as the first inventor.*

There is no escaping from this decision, and the parties who hope to do so by injurious imputations against the Commissioner of Patents, who made the decision in this case, will be disappointed.

It will require something more, they will find, than mere assertions or insinuations to produce any distrust of the integrity of the Commissioner of Patents. The testimony in this case clearly proved that I was the first inventor of the spring in question, and justly entitled to the patent which had been granted to W. C. Fuller for the same invention, and the Commissioner of Patents could not have made any other decision.

The cut given below represents a model for which a patent was granted to Mr. Ray in his contest with Fuller. It is a perfect *fac simile* of the original invention.



A patent was granted to Fuller by the United States on the 22d October, 1846 under the title of "An improvement in Railway Carriages." At this time I was pursuing my experiments with a view to ascertain with greater certainty, the best form of spring for railroad cars, and knew nothing about the invention or patent of Fuller till I applied for a patent shortly afterwards, and received notice from the Patent Office of the interference with Fuller's which *this decision has settled against Fuller and in my favor.*

Knevitt says that I made the same application to Mr. Burke, the former Commissioner of Patents, which was refused, without giving the reason why it was refused, leaving it to be inferred without daring to make the assertion openly, that, as between Fuller and Ray, Mr. Burke had decided against Ray: whereas, the fact is, as the record of the case at the Patent Office will show, that the application was refused on the ground that there had been a patent granted in England to Lacy prior to either Ray or Fuller, and that objection, if correct, would prove fatal to a suit by Fuller upon his patent, as well as to a suit by me upon my patent for the same thing; but the Commissioner of Patents, upon a closer and fuller investigation of the English patent granted to Lacy, than was given to it on the first application, has decided that the patent to Lacy is not in the way of a patent either to Fuller or myself, for the form of spring in question——that is, alternate discs of rubber, with metal plates interposed, etc. And, as between Fuller and myself, *the Commissioner of Patents has decided that Fuller is not the first inventor, but that I am, and am entitled to the patent in question.*

It would seem unnecessary to add anything more; enough I trust has been shown to put the question at rest with the various railroad companies, the parties most interested in this decision.

I ought, perhaps, to say something in reply to Mr. Knevitt's statements in regard to his and Day's infringement upon Goodyear's patent by the manufacture and sale of Vulcanized rubber, and the publications which they have put forth to induce railroad companies to become parties to the infringement on said patent, and to get them involved in controversy; but as there are a number of suits against Day for damages to a large amount for infringement in this respect and other matters, and particularly as there is a suit by Goodyear against Day, which Day is under stipulation to try at the next March term of the U. S. Circuit Court, to be held at Boston, unless Day succeeds in putting it off, of which there is very little probability, as I am informed, I shall abstain for the present from saying anything about this subject.

Mr. Knevitt wisely declines to say anything about the suits of Charles Goodyear against Horace H. Day for damages for infringement of Goodyear's patent, by manufacturing for Knevitt the vulcanized rubber, of which all these springs, sold by Knevitt to railroad companies, were composed, and I leave both Day and Knevitt to answer to the few railroad companies whom they have deceived, and thus rendered liable for large damages for infringment of Goodyear's patent, in the best manner they can.

Knevitt does not pretend to deny that he has given false assurances to the few railroad companies whom he has thereby induced to infringe upon the springs, which the Commissioner of Patents has decided against Fuller, and in my favor, as the first and true inventor; but, for the purpose of diverting attention from this fact, he still continues to harp upon *a separate and distinct patent* of mine for railroad springs, which, he says, was for *India-rubber* and *air*, and has proved useless. How much truth there is in this assertion may be gathered from the following copy of the claims in that patent, and from the fact that the spring patented by me in 1848, is the most approved form, and the one adopted in nineteen cases out of twenty, and is used on nearly every railroad in the United States.

Copy of the claims in patent granted to Fowler M. Ray, August 1st, 1848:

FIRST—In combination with springs made of vulcanized India-rubber, substantially as above described, the use of hoops or bands on the external circumference at the ends, or between the ends, or at the ends, and at any required distance between the ends, substantially in the manner and for the purposes above described.

SECOND—I claim combining the elasticity of India-rubber cylinders, substantially such as herein described, with the elasticity of atmospheric air, or other permanently elastic gas, by closing up the ends of such India-rubber cylinders either with discs of India rubber, or the equivalent thereof, such as solid discs of metal, substantially in the manner and for the purposes specified.

This patent bears date 1st Aug., 1848.

I take no notice of the opinions of counsel cited by Knevitt. Knevitt ought to know that the paid opinions of lawyers employed in a case, will have no weight whatever. There are always two sides to all causes, and it is the business of counsel to advocate the cause of their clients.

F. M. RAY.

New York, October 1, 1850.

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American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & Co., 136 NASSAU ST.

Saturday, November 23, 1850.

Portland and Halifax Railway.

We are favored with a copy of the "Plan for Shortening the Time of Passage between New York and London," with the published proceedings of the Railway Convention at Portland, and the doings of the Executive Committee in furtherance of the scheme, brought down to the first of October last.

We do not think the Committee could have done a greater service, at so cheap a rate, as by the satisfactory mode in which they have attempted to embody the spirit of this great Convention, in the neatly executed volume of 180 pages before us.—We learn from all quarters that no language can convey anything like an adequate idea of the spirited and glowing enthusiasm of the occasion itself.

After seventy-five years of separation, the members of the same maternal family came together to enjoy the festivities of a family meeting. From Halifax and Quebec, from St. John (New Brunswick), and from St. John (New Foundland), from all the cities of each Province, and from the counties on the St. Lawrence shores, the children of the same fatherland shook hands for the first time with each other, and with their kinsmen of New York and New England.

Fortunately for the cause, and for all who took part in the labors of the Convention, the book before us gives us in the glowing language of the occasion, the expressions of fraternal sympathy and of patriotic feeling, which cannot fail of doing its work in removing the last remains of prejudice and of jealousy between all the members of the English family on this continent.

We regretted at the time our inability to attend the Convention. We have read the account of its doings, and the speeches, in the volume before us, with unabated satisfaction. One of these speeches —that of Hon. Robert Rantoul, Jr., of Massachusetts—we give in our present issue. We shall give others from time to time in the columns of the Journal, fully assured that nothing we can publish, will be more eagrely read than the speeches of such men as Gen. Dearborn, Hon. L. A. Wilmot, Attorney-General of New Brunswick, and the other distinguished men who took part in its proceedings. The occasion seemed to impress them with the noblest sentiments, and the most profound respect for the noble scheme, which promises so much for the peace—the social condition of all who speak the English tongue.

In the speech of Hon. F. O. J. SMITH, we find the following paragraph, which will give some notion of the spirit of the meeting, whatever may be thought of it as far as any question of taste or of religious sentiment is concerned.

In the annals of mankind—since the first dawn of civilization, there has not been a spectacle that surpasses in moral and political grandeur—or that ought to surpass in moral and political events, the exhibition which *the three memorable days* of this Convention have made to the world. Were all the blood shed at Calvary, and which then was taken up as by an universal atmosphere, and diffused throughout the world of man, and which has since circulated through the veins of all the different races of our kind, were to be gathered in one stream and poured out here upon your table, as upon a common altar, the evidence of a kindly feeling, the spirit of "peace on earth and good will toward men," could not be more satisfactorily impersonated by it, than has been exhibited here on this occasion. Sir, considerations of higher influence, of greater value than the mere construction of a railroad have presented themselves and impressed themselves upon the feelings and hearts of us all who have been in attendance here; and if no railroad, such as has been sanctioned by the voice of this Convention, should ever be constructed, I should consider that we have all been gainers by the manifestations, and better knowledge of each other which this occasion has made. It has bound together as in a new marriage, the citizens of different nations, and as was well proclaimed by a previous speaker, what has been joined together in the presence of both God and man, let no man hereafter put asunder. (Cheers.)

The speech of Mr. Smith abounds in the most strikingly profound and original views, which we intend to publish at full length hereafter.

The plan finally agreed upon by this Convention may be briefly stated in the following propositions.

1st. A continuous line of railway from Portland, Maine, to Halifax, a distance of 550 miles—223 miles in Maine, 204 miles in New Brunswick and 124 miles in Nova Scotia.

2d. The whole to be under one management from Bangor to Halifax, under concurrent charters from Maine, New Brunswick and Nova Scotia.

3d. The State of Maine and each Province to provide the means for their respective portions, the same to be a common stock and under a single Board of Directors.

4th. One-half the amount required in the State of Maine or in each Province to be raised by individual subscriptions, and the aid of the Province or State to be solicited in the form of a guarantee rather than as stockholders or partners.

5th. The British and American Governments to be applied to for aid by a permanent contract for the carrying of mails, as soon as the road shall be finished.

The Central Executive Committee who have charge of the matter seem to have pushed forward with commendable vigor.

The Legislature was then in session. We quote from the report of the doings of the Executive Committee.

The Legislature of Maine promptly responded to every request of the Convention.

The Revised Statutes of Maine, ch. 81, provide that no railroad charter shall be granted till the line has been carefully surveyed, and the proper plans, profiles and estimates thereof duly exhibited. But, in this instance, all these requirements were waived; and the Hon. George M. Chase, of Calais,

introduced into the Senate of Maine, by unanimous consent, the Bill for incorporating the European and North American Railway; which Bill became a Law, August 20, 1850. The Charter is one of unequalled liberality, and such as has not before been granted in New England; *perpetual* in duration, not subject to Legislative alteration; the company not subject to any taxation, and the stockholders are not liable for the debts of the company beyond the assessments on their stock. The company may organise on the subscription of one million of dollars, and locate its line on the most practical route to the boundary of Maine, in the general direction of the city of St. John.

By a subsequent Act, approved August 27th, it is provided that, in case said company shall be constituted a corporation in the Provinces of New Brunswick and Nova Scotia, or either of them, then and in that case, the company may increase its capital stock to an amount sufficient to complete the line through said Provinces, not exceeding $15,000,000. By the laws of Maine, the company has the right to issue bonds and to hire money without further Legislation.

On the 20th day of August, the Legislature appropriated five thousand dollars for a reconnoissance and preliminary survey of the line.

And, on the 28th day of August, by a Resolve of the Legislature, the Governor of Maine was authorised and requested to communicate to the President and Congress of the United States, from time to time, such information as he might deem it advisable to lay before them, as to the advantages of the route through Maine, proposed for the European and North American Railway, for securing the most direct and rapid communication between this country and Europe, and to invite such aid and co-operation on the part of the General Government as the interests of Maine might require.

The Governor immediately commissioned A. C. Morton, Esq., to take charge of the survey; who at once entered upon the discharge of the service, and placed two surveying parties in the field, Hon. Amos Pickard, of Hampden, acting as Commissioner. John Wilkinson, Esq., the Engineer in charge of the survey from St. John to the boundary of Maine, and Mr. Morton, had a meeting at the boundary, and the two surveys are made in concert, by the arrangements of the two Engineers. It is believed that before the close of the present year, the surveys can be so far advanced as to show, in connection with previous surveys, the most direct and practicable line from Bangor, in Maine, to Halifax or Whitehaven. Enough is already ascertained, to show that no serious engineering difficulties will be found on any part of the line, and that the distance will fall below the previous estimates.

By a simple act of each Province, of New Brunswick and Nova Scotia, constituting the European and North American Railway, as incorporated by the State of Maine, a corporation within said Provinces, with the right to exercise the several powers granted—in the same manner, and to the same extent, and under the same limitations and restrictions as are contained in the charter granted in Maine—that the most ample corporate powers are secured to said company forever.

The Legislatures of New Brunswick and Nova Scotia meet in January next.

Meanwhile a provisional subscription has been commenced in New Brunswick, and we are informed that in the city of St. John some £60,000 are already raised, and the assurances are that $1,500,000 can be raised by private subscription in that Province alone.

In Nova Scotia, most unfortunately, there is a disposition to throw the work into the hands of the Provincial Government. We are glad to see so good a feeling manifested by Sir John Harvey, Lieut. Governor of Nova Scotia, and by the leading men of the government; but we think there should be no departure from the original plan.—Such we have reason to know are the opinions of the Executive Committee. The city of Halifax alone can raise one half the amount required to complete the line in that Province, and they should ask nothing of the government but a law similar to the Canadian law, guaranteeing one-half the cost of certain great trunk roads. We think the Canadian law just what is wanted in New Brunswick and Nova Scotia, and nothing further.

In Maine 82 miles of the distance are already completed—as far as the Kennebec river at Waterville. A second line to the same point will in all probability be completed within two years, passing through Augusta, the capital of Maine. From the Kennebec river to Bangor, a distance of some 50 or 55 miles, the necessary stock is taken to organise the company, and a choice of directors for this line takes place at Bangor the 27th of the present month. It is hoped that the companies between Portland and the Kennebec river will readily furnish the means for completing the line to Bangor. From Bangor to Calais, the distance of 90 miles, is on a route of easy construction, and the people os Bangor and the eastern part of the State can furnish the means required for its early completion.

We shall look with great interest for the report of Mr. Morton, who proposes to issue, at the expense of the State of Maine, a plan and profile of the whole line from Bangor to Halifax. The line from St. John to Halifax having been previously surveyed at the expense of the Provinces of New Brunswick and Nova Scotia.

We presume that no effort will be made to obtain the subscriptions to stock in Maine till after the Legislatures of New Brunswick and Nova Scotia shall have granted the necessary charters in their respective Provinces.

Speech of Hon. Robert Rantoul, Jr., of Mass.

That he had come there for the purpose of informing himself of the practicability of a speedier intercourse with Europe by the route proposed, of the obstacles to be overcome, the cost of the enterprise and the degree of interest felt along the line, of all which matters he was ignorant, but presumed that others were ready with full statements of these particulars essential to be known. As I am called on however to open the discussion, he said, I will not offer an evil example by declining to speak what is within my knowledge, and seems to be pertinent to this occasion, a few words upon the importance of the project under consideration. Massachusetts may well utter her voice on this occasion, for her sons live along the line you propose, a line to connect Liverpool, London and Paris, the British Islands and the Old World Continent, on the one hand, with Boston, New York, Cincinnati, and St. Louis, with the Atlantic slope, the basin of the lakes, the valley of the Mississippi, and the rising Pacific empire on the other; the highway between the accumulated numbers and wealth of all Christendom and Pagandom after their many thousand years of tardy growth, and the nation whose young energies have raised her from a third rate to a first rate power in the first half of the nineteenth century, and will make her the mightiest empire of the world, that is or has been, with her hundred millions of homogeneous population, before the close of this century.

To know what is proposed to be done, is to know at once the vast interests involved in its accomplishment—interests not confined to one age or to one continent, but broad as humanity, and lasting as time. You propose to cut off nearly one third from the interval which separates one division of our race from the other. Doing this, you will multiply and strengthen the ties of friendship, mutual benefit, and consequent peace in a greater proportion than you approximate men in their business relations. You will have made a greater practical advance than any one act of man ever yet made towards combining the inhabitants of the globe in one grand brotherhood.

What demand exists for a road from the United States through Nova Scotia, with a ferry to Ireland, and thence across the British Islands to Europe?—How shall we measure the use likely to be made of it? Of its local travel, I will not speak, because I see those here who can estimate it from personal acquaintance with the country: but it is obvious that you will have all along the line when completed, that which has gathered in Massachusetts her million of inhabitants, abundant and convenient water power with facilities for cheap and rapid transportation; and you will have besides what Massachusetts has not, coal ready to your hand, inexhaustible, and associated with the richest mineral treasures.

The number of emigrants arriving in the United States will average about a thousand a day. It would require but a small part of these to give employment to the shortest line. With business passengers the time to be saved becomes an important element in the choice of routes. As business now increases, daily lines of steamers will soon be required, and it is hardly credible that the throngs they will bring will spend three days, or even two days, on the way, which could so easily be economised.

Will our intercourse with the old world continue to increase? I doubt it not: and at an accelerating ratio. Every addition to our commerce and navigation causes a new movement of passengers to look after their interests in the various operations going on. Modern commerce is almost wholly the growth of the present century, and it belongs almost wholly to two nations, Great Britain and ourselves.

There is nothing so wonderful in the history of civilization as the late development of commerce: nothing so wonderful as the amazing increase of British navigation, except the still more amazing increase of our own. The British empire has her four millions of tons of shipping. We have our three and a half millions of tons, but about one million of tons of this amount has been added in the last four years—an increase equal to that of about nine times as long a period from 1810. New York has now more shipping than the whole British empire had during the war of the revolution. This State of Maine owns and builds more tonnage in proportion to her population than any other State or nation on the face of the globe.

There are some general considerations which satisfy me that this sudden and unexampled development of commercial industry is far from having reached its highest point. The new trade of the Pacific will employ more shipping than the United States owned when the Constitution was adopted. These ships must be built, and their many hundreds, not to say thousands of cargoes supplied mostly in New England and New York. The returns must come back here, and when our system is saturated and the channels of circulation filled with the precious metals, so that gold is worth less here than abroad, we shall become a gold exporting nation, and import what Europe has to sell in return for our gold as well as for our corn and our cotton. This alone will add many millions to the annual aggregate of our foreign commerce.

The demand abroad for our agricultural produce can be met more readily and more fully when the railways of the Western States can bring the crops of the interior down to water carriage on the lakes, and rivers, and where there is shipping enough to transport it. This demand already exceeds the most sanguine expectations. In the last four years we have exported three thousand millions of pounds of cotton, worth two hundred and fifty millions of dollars, half a million of hogsheads of tobacco, ten millions of barrels of flour, ten millions of bushels of wheat, forty millions of bushels of corn, half a million of tierces of rice, besides animal products in quantities unprecedented, all at prices higher than the average of the four previous years.

Commerce has changed its entire character within a short period. Formerly when transportation was slow and costly, it was only articles of high value that would bear the charge. In the account of the trade of the Roman empire with the East Indies in the time of Pliny, averaging the cost of all the articles named, of which prices can now be ascertained, I find they range generally from fifty cents to more than a dollar per pound for all that may be supposed to constitute the bulk of their cargoes, to say nothing of gold, gems, pearls and objects carried in very minute quantities.

It is quite obvious that a very small amount of tonnage would be sufficient for the commerce of the world while it was confined to these articles.—

They were sold at Rome, often at two or three hundred per cent. on the first cost. Yet the business of the merchant was very precareous Of course, a few persons only consumed these luxuries. The mass of mankind had no interest in commerce; they consumed nothing that was not of domestic origin.

Take a single article that will illustrate the change. Sugar was once sold by the drachm for supposed medical uses. After sugar was used as it is now, two pounds of it at Venice would purchase a days labor. Now we import more than a hundred thousand tons of that article at about three cents a pound, in addition to our home supply, because the cheapness of the article allows it to enter into universal consumption.

So great are the improvements in navigation, that articles as bulky in proportion to their value as corn, iron, salt, coal and ice, can be profitably carried on long voyages. Flour, sugar, coffee and cotton, of course can be transported at much less addition to their original cost. The great mass of the domestic exports of the United States will average, taking one year with another, not far from sixty dollars per ton weight; a fact which explains the creation of our vast mercantile marine, increasing without a parallel in the annals of the world.

Commerce is now an instrument of the comfort and well-being of the millions of men all over the world, instead of ministering to the caprices of a few. It must expand with its extended sphere of action.

This expensive tendency is promoted by the new policy of Great Britain, and some other nations, who have lately removed some of the principal obstacles they had placed in the way of their own commerce. Since Great Britain encouraged her own industry by allowing her laborers to make their purchases in the cheapest market, her intercourse with us has advanced with rapid strides.—From 1845 to 1849, the aggregate of our imports from and exports to the British dominions had increased from one hundred and ten millions to one hundred and sixty millions of dollars, our imports increasing almost forty per cent., and our exports more than fifty per cent. in four years.* The increase in our Indian corn alone, to the British dominions, in the year 1849, which was not a year of famine, was more than three hundred thousand tons a weight greater than our whole exports of cotton a few years ago.

The corn growers of Illinois want railroads and must have them. They have little spare capital, and need cheap rails on good terms. They have corn, not wanted at home, but wanted at good prices by the makers of British iron. One ton of corn from Illinois laid down in Liverpool will buy a ton of rails, and give employment to American shipping out and home. Such an exchange is full of benefits to all parties. There is no danger that mankind having once enjoyed those benefits will voluntarily relinquish them. God has not created in vain different soils and climates, but by constantly improving facilities of intercourse, the people of each climate become participants in all the advantages of every other. I look forward then to a future for commerce far beyond the present brilliant reality, and of the intercourse growing out of that commerce, the shortest and quickest route between New England and Old England must be a main artery.

	1845.	1849.
* Imports from British dominions.....	49,903,725	67,387,983
Exports to British dominions.....	61,044,535	93,172,339
	$110,948,260	160,560,323

LINE OF PROPELLERS BETWEEN SAVANNAH AND NEW YORK.

A project is on foot in Savannah to organize a company to build a propeller of 1100 tons, with sufficient capacity for 1500 to 2000 bales freight, and cabin accommodations for 100 passengers, and good proportion for steerage. The cost of this vessel will be about $100,000, which will be taken in shares of $100.

Internal Improvements of the State of New York.

A SKETCH OF THE RISE, PROGRESS, AND PRESENT CONDITION OF INTERNAL IMPROVEMENTS IN THE STATE OF NEW YORK.

Continued from page 723.

Mr. Clinton noticed this important feature in the route through New York in his memorial to the Legislature in 1816, as follows:—"Some of the waters of this state which pass into Lake Ontario approach the Mohawk; but our Hudson has decided advantages. It affords a tide navigation for vessels of eighty tons to Albany and Troy, 160 miles above New York; and this preliminary distinguishes it from all the other bays and rivers in the United States, viz:—*The tide in no other ascends higher than the Granite Ridge, or within thirty miles of the Blue Ridge, or eastern chain of mountains. In the Hudson it breaks through the Blue Ridge and ascends above the eastern termination of the Catskill, or great western chain; and there are no interposing mountains to prevent a communication between it and the great western lakes.*"

Passing southwest for a distance of 25 or 30 miles from the Erie Canal at Utica, the rise is over 700 feet to the summit of the Chenango Canal; and passing northeast from the Erie Canal at Rome for a distance of 25 miles, the rise is 693 feet, requiring 70 locks to reach the Boonville summit of the Black river Canal. The canal of only eight miles in length, from the Seneca to the Crooked Lake, has 27 locks; and the Genesee Valley canal rises so rapidly from Mount Morris as to require 47 locks in a distance of about four miles, and this elevation reaches 700 or 800 feet in a distance of 25 or 30 miles.

The Erie Canal, through portions of the counties of Oneida, Madison, Onondaga, Cayuga, Wayne, &c., was located along the low lands between the elevated ground north and south of the line, as indicated by the surveys of the Chenango and Black River canals; and through the marshes created by the outlets of the Cayuga, Seneca, Canandaigua, and other lakes. The original surveys of the line from Rome west for a hundred miles, was to a great extent through low lands from which the timber had not been removed, and large tracts of which were not susceptible of being converted to agricultural purposes, without an expenditure in drainage too great to be encountered by individuals at that time.* But the formation of the country was peculiarly favorable for a canal. The commissioners, in their report of 1819, after alluding to the necessity of reservoirs and the difficulty of obtaining and controlling waters for canals in Europe, say: "In making our canal, we are much more anxious to divert and waste those waters which are superfluous. With a country of from fifteen to sixty miles wide, stretching its whole length, and abounding with lakes and streams, which all seek their natural discharge by crossing it, no deficiency of water can ever be apprehended."

From the head of tide navigation in the Hudson river to Lake Erie, 363 miles, the rise and fall is given by the Canal Commissioners, in their annual report of 1817, at 661 35-100 feet, requiring 77 locks on the direct line. The original profile of the Erie Canal, published in 1825, shows 83 locks, counting one of the tiers at Lockport, and a rise and fall equal to 687 feet. In enlarging the canal, seven locks were dispensed with between Albany and Utica—two by cutting down the Jordan level—and three by an aqueduct acrosss the Seneca river and Montezuma marshes.† The number between Albany and Utica is diminished by adding to the lift of some of the locks. The five locks dispensed with at the west, it is supposed, diminish the lockage 47 feet, leaving the rise and fall for the whole distance from Lake Erie to the Hudson at 640 feet, and the number of locks, omitting the double locks, at 71, equal to an average of a fraction less than one lock for each five miles of canal. On the Chenango Canal there are nineteen locks more than one to a mile—on the Black river a little more than two to a mile—on the Crooked Lake a little more than three to a mile—the Chemung Canal has 53 locks on 39 miles of canal—the Glenn's Falls' feeder about one lock to a mile. The rise and fall on the Chesapeake and Ohio Canal would require 321 locks of 10 feet lift on a line of 341 miles, a little less on the average than one to a mile. The Pennsylvania Canal route requires 451 locks of 10 feet lift each, being 10 locks more than one to a mile. Even the Ohio Canal, from Cleveland to the Ohio river, averages more than one lock to each two miles of canal.

The Erie Canal, as originally constructed, had one level of 69 miles, another of 64, and a third of 30, and others of 8, 10, and 12 miles. The long level from Frankfort to Syracuse, has been altered in enlarging the canal, by placing a lock of three feet lift at Utica.

The route for the transportation of products from Lake Erie to New York, possesses natural advantages which are not found on any other route between the western waters and the Atlantic, in the extensive mountain range from the Highlands on the Hudson to Alabama. By a timely and judicious improvement of these great natural advantages, the state of New York has been enabled to counteract the disadvantages of a rigorous climate, which closes the canal five months in the year, and to compete successfully with shorter routes, passing through milder climates.

The state of Pennsylvania has constructed a work across the Alleghany Mountains, which evinces the highest degree of enterprise and perseverance. The spirit with which this great work was undertaken and executed, deserves success, if it does not command it. A railroad crosses the range of mountains by a tunnel 900 feet in length, and an ascent and descent of 2,570 feet in a distance of 36 miles; and this formidable obstacle is overcome by ten inclined planes, operated by as many stationary engines. In the whole distance from Philadelphia to Pittsburg, by way of the Columbia railroad and canal, 394 miles, the ascent and descent is 5,220 feet; and by the Schuylkill, Union, and Pennsylvania Canals, 441 miles, the ascent and descent is 4,514 feet; 1,944 by locks, and 2,570 by inclined planes.* The disadvantages in crossing the mountains by stationary power, and other embarrassments in the mode of transit, have led to the determination to complete a continuous railroad from Philadelphia to Pittsburg, which shall dispense with the inclined planes. But the tonnage must ascend and descend the Alleghanies, by the most formidable grades which can be surmounted by a locomotive engine.

On the Virginia route, as stated by Mr. Ellet, the engineer who surveyed it, a line has been found where the mountains can be crossed at 500 feet less elevation than in Pennsylvania. He also states that the Chesapeake and Ohio Canal, to surmount the same impediment, requires nearly 3,250 feet of lockage,† and a tunnel more than four miles in length. "While on the Baltimore and Ohio railroad the system of abrupt grades is resorted to, and the line is sustained on the sides of the mountains at great expense and difficulty."

In the early discussions in regard to the character of the several routes for the accommodation of the trade of the west, Cleveland, or the mouth of Cuyahoga, on Lake Erie, was selected as the point Since the opening of the great Ohio Central Ca- from which the distance to market is computed.—nal, the point of comparison has been removed to Portsmouth on the Ohio river, which is more than 1,000 miles from the city of New York, exceeding the other routes to market by 278, 300, 400, and 500 miles. In view of all the advantages of the Virginia route, which connects with the Ohio 276 miles below Pittsburg, having better navigation on the Ohio than Pennsylvania and Maryland, and 500 miles less to market than New York, Mr. El-

* The commissioners in 1817, describing the middle section of 77 miles, say:—"As a great part of the route of this section lies through low lands, where the timber is very heavy, with large roots, the estimate for grubbing and clearing it is at the rate of $1,500 a mile." This is the line from Rome, through the present city of Syracuse, to Montezuma.

† See Annual Reports of Commissioners, 1838, 1839, and 1850.

* Report of Mr. Stewart to the Chesapeake and Ohio Canal Convention in 1834.

† Mr. Stewart gives the lockage from tide water at Washington to Pittsburg, 341 miles, at 3,915 feet.

let says:—"I do not regard the rivalry of New York; for the least investigation of the facts will show that New York can reach the trade of the Ohio only through the Pennsylvania and Virginia lines." He adds, however, in a note, that, "the superiority of the New York market will cause the trade of the states of Ohio, Indiana, and Illinois, to divide near the water shed of that territory, leaving to New York about one-third of the territory of Ohio and Indiana, and the north part of Illinois." It might be claimed on the part of New York, that the comparison between the routes should be made from a point equi distant from the Ohio river and Lake Erie. But as a new channel is now in operation from Lake Erie to Cincinnati, it is proposed to compare the routes from the latter place.

The Virginia route, from the mildness of the climate, the shortness of the distance, and its favorable connection with the Ohio river, possesses peculiar advantages for the accommodation of the trade of the valley of the Ohio. And Virginia, Maryland, and Pennsylvania, each have, in the article of coal, the means of supplying an inexhaustible quantity of tonnage; a resource denied to New York, except so far as it can be drawn from other states. It is estimated by Mr. Ellet, that the improvement which traverses the state of Pennsylvania, is now inoperative, by drought or ice, at least five months of the year. The navigation of the Erie Canal, for the last ten years, has averaged 221¼ days, being 6¼ days more than seven months of navigation in each year. For about five months in a year then, both the Pennsylvania and New York routes are not in good order for the transportation of products. The other causes which materially affect the choice of route for the transportation of commodities are—distance from market; the rise and fall on the route to be overcome by locks or inclined planes; the character of the work in affording security in the mode of transit; certainty in reaching the market at a fixed period; and the chracter of the market.

In the following table the distance is computed from Cincinnati, on the Ohio river, to the Atlantic city where the products are sent to market. The table shows:

1. The number of miles from Cincinnati to the shipping port.
2. The distance from the shipping port to the ocean.
3. The distance from Cincinnati to the ocean by the route designated.
4. The rise and fall in feet, to be overcome by locks or inclined plane, from Cincinnati to tide water, on each route.

From Cincinnati.	Dist. to shipping port. miles.	From shipping port to ocean. miles.	From Cincinnati to ocean. miles.	Lockage or rise and fall. feet.
To Richmond, by the Ohio, Kanawha and James rivers.	688	135	823	3,300
To Georgetown, by Ohio river and Chesapeake and Ohio Canal.....	808	177	985	3,215
To Baltimore, by the Ohio river to Wheeling, & railroad.....	741	200	941	3,215
To Philadelphia, by Ohio river, canals and Columbia railroad.....	862	105	967	5,220
To Philadelphia, by Ohio river and canals.....	941	105	1,046	4,514
To New York, by Miami Canal to Lake, and Erie Canal..... ...	1,010	20	1,030	*1,239
To New Orleans, by Ohio and Mississippi rivers.....	1,511	100	1,611	

* This includes 599 feet of lockage on the canal from Manhattan, Lake Erie, to Cincinnati, a distance of 250 miles, viz., 70 Wabash and Erie to Junction, 114 Miami Extension, and 66 Miami Canal, from Dayton to the Ohio river.

There is a route from Cleveland to Philadelphia, by way of Akron, on the Ohio Canal, and Beaverton, to Pittsburg, and the Pennsylvania Canals.—But this route will add 900 feet to the lockage, and 93 locks to the canal route, making the total rise and fall from Cleveland to Philadelphia, 5,414 feet, requiring 541 locks of ten feet lift each, in a distance of 610 miles. It is 704 miles from Cleveland to New York, with 640 feet of lockage and 71 locks.

The route down the St. Lawrence is not brought into comparison with the other routes in the preceding table, for the reason that, so far as New York is concerned, the battle for the western trade with her Canadian neighbor must be decided on the lakes.—*Merchants' Magazine.*

To be continued.

Routes Across the Isthmus.

Continued from page 721.

Lake Managua may thus be said virtually to have no outlet. The streams which come in from the Pacific side are insignificant; and though, as already stated, the Rio Grand and other streams of considerable size flow into it from the direction of Segovia, yet they vary much with the season of the year, and seldom furnish a greater quantity of water than is requisite to supply the evaporation from so large a surface in a tropical climate. The lake sometimes rises a few feet from the influx of water, but according to the concurrent testimony of the inhabitants on its shores, its average level is considerably less than it was some fifteen or twenty years ago, before the terrible eruption of Consegunia. Nevertheless, a reservoir like that of Managua, with 1,200 square miles of surface, would be adequate to supply all the water required for a ship canal at this point, without any sensible diminution of its volume. The winds on the lake blow freshly from the NE. during the afternoon and evening, and subside towards morning, causing an ebb and flow in its results corresponding with that produced by the tides of the ocean; hence the vulgar error of a subterranean communication with the sea. The same is true of Lake Nicaragua.

LAKE NICARAGUA.

Lake Nicaragua is unquestionably, in all respects, one of the finest bodies of water on the continent, and needs only to be made easy of access to become as famous a resort of the grand and beautiful in nature as any now known in the Old or New World. In common with Lake Managua, its size has been rather under than over-estimated. Mr. Bailey calculated its greatest width at 40 or 45 miles. It is probably nearer 120 miles in length by 50 or 60 in breadth. Upon its southern shore, near the head of the lake, is the ancient city of Grenada, the most important commercial point in the republic. It has a considerable trade, which is carried on through the port of San Juan on the Atlantic by means of small boats of peculiar construction, and capable of carrying from four to ten tons, called *bungos*. These make the trip to San Juan and back in about three weeks time. Upon the same shore with Grenada, but 40 miles distant, is the city of Nicaragua or Rivas, the capital of a very large, fertile, and comparatively well-cultivated district. The water of the lake, in most places, shoals gradually, but at some points vessels of the largest class may approach close to the shore.—The depth, except in the immediate vicinity of its outlet, is for all purposes of navigation ample, ranging from 8 to 20, and even 47 fathoms. The prevailing winds are from the NE. (the direction of the summer trades on the coast,) and when the breeze is considerable the waves of the lake roll with all the regularity and with much of the majesty of those of the sea. At such times, the surf upon the shore at Grenada is nearly as high as that upon the beach at Newport and Cape May.

RIVER SAN JUAN.

The river of San Juan, concerning which so much has been written, is certainly an exceedingly a magnificent stream, but its capabilities have been greatly exaggerated. It is the only outlet as is well known, of the two large lakes just described. It flows from the southeastern extremity of Lake Nicaragua, nearly due east, to the Atlantic. Its length has been variously estimated from 79 to 104 miles. The first estimate is obviously too little.—Mr. Bailey calculated it at 90 miles, and he is probably not far from correct.

The body of water which flows through this stream is at all times considerable, but it varies greatly in amount at different seasons of the year. It is greatest during what is termed the "rainy season" in the interior, that is to say, from May to October, at which period the volume of water is nearly doubled. To this circumstance in a great degree may be ascribed the whole difference in the statements of the depths and capacity of the river made by different individuals.

Several considerable streams enter the San Juan, the principle of which are the San Carlos and the Serapique, both rising towards the south in the highlands of Costa Rica. The streams flowing in from the north are comparatively small, indicating that the mountains are not far distant in this direction, and that upon this side the valley is comparatively narrow. The Serapique is ascended by boats to a point where the Costa Rica road (trail) commences. This is the route by which Costa Rica keeps up communication with the San Juan, and to the point here named she is now endeavoring to construct a road for mules starting from San Jose, her capital. The banks of the San Juan, from the fort of San Carlos, at the outlet of the lake, to the *Rapides del Toro*, a distance of twenty miles, are generally low, and covered with palms, canes and a species of high, coarse grass called *gamalote*. The river here sometimes overflows its shores, which for a considerable distance back seem to be flat and swampy. From the port of San Juan upwards to the point of the divergence of the Colorado, a distance of eighteen miles, the banks of the river present a corresponding appearance. In fact, the entire country from this point to the sea is flat, as is shown by the divergence of the Colorado, the Juanillo, and Tauro, and by the occurrence of numerous lagunas. It is nevertheless fertile, and capable of producing in the utmost luxuriance rice, sugar, and those other articles which require moist and fertile soils. From the Colorado to the Rapides del Toro, a distance of more than fifty miles, the banks of the river vary from six to twenty feet in height and are densely wooded, the forests coming down to the water's edge, forming an almost impenetrable wall of verdure. The passenger in the boats is so completely shut in by vegetation, that it is impossible to discover what is the character of the back country. At intervals hills and high grounds are to be discerned, and sometimes these came down to the edge of the river. At the mouth of the San Carlos there are hills 2,000 feet high, and the river is much contracted. The entrance of the passage between them, from the west, somewhat resembles the opening of the highlands of the Hudson from the north.

The banks of the river are in some places rocky; elsewhere they are far from being as crumbling as those of the Ohio and Mississippi and other rivers of the Western States of the Union. This is, perhaps, due, in some respects, to the roots of trees and plants which penetrate and bind the earth in all directions. The bed of the river may be regarded as essentially permanent; it nevertheless abounds in islands, of which there are hundreds. Some of these are low and covered with *gamalote*, or with canes; but most are as high as the banks of the river, and wooded in like manner.

The width of the river varies from one hundred to four hundred yards, and its depth from two to twenty feet. I should estimate the average volume of water at about that of the Hudson below its confluence with the Mohawk. The bottom seems generally to be gravel. There are four considerable rapids, where the bed is rocky and the water shallow; these will be noticed hereafter in detail. The current from the mouth of the river to the Del Toro is very rapid. With the water at a medium stage, in a light bungo, and with a stout crew of 10 men, I was six days in passing from San Juan to San Carlos. The men labored hard at the oars and setting poles from long before daylight until after dark each day. We passed other bungos which had left three days before us, and our trip was regarded as one of extraordinary rapidity. From these facts, some idea may be formed of the

strength of the current. Bulow calculates the fall of the stream at twenty inches per mile, except at the various rapids, where it is more.

The banks of the river are totally uninhabited, nor is it known that any one has penetrated the country in either direction. A small garrison is stationed at Castillo Viego, about twenty-five miles below the lake, and the rapides Del Castillo. There is no doubt that the entire region is eminently fertile, and capable of producing all the fruits and staples in the greatest abundance.

Virginia.

Virginia and Tennessee Railroad.—We find in the Richmond papers, the speech of Mr. Garnett, Chief Engineer of the above road, delivered at a meeting held in that city on the 19th ult., to take the necessary steps to raise $100,000, the sum which it is now called upon to contribute to the above work, for the purpose of putting an additional division of 70 miles under contract the present season. The first division of the road from Lynchburg to Salem, a distance of 60 miles, by far the most difficult portion of the whole route, is now far advanced in the work of grading, and the iron for this portion of the line has been purchased.

The greater part of the speech of Mr. Garnett is taken up in illustrating of the advantages of railroads, from the favorable influences they have exerted whererever built, and in showing the importance of the above work to Virginia and the region traversed by it, which is unquestionably one of the best in the country. It is exactly to the point, dealing in plain matters of fact, discarding anything like display or verbiage. It should be placed in the hands of every man in the State, as a sort of a vade mecum of railroad information.

We have not room for the principal part of his remarks, which is designed to have a local bearing, and to operate upon those immediately interested in the road. But as this work, from its connections, becomes national in its character, so far it interests a New Yorker equally with a Virginian; and we copy the following for the purpose of showing what this road will enable us to accomplish in the way of travelling, when the whole line, of which this is a part, shall be completed.

Now what is the prospect of having all this line completed? You already know the chance of finishing the Virginia and Tennessee railroad, which extends from Lynchburg to the State line, 210 miles. The East Tennessee and Virginia road thence to Knoxville, 110 miles long, is now under construction. Seven hundred thousand dollars have been subscribed by private individuals, and a considerable distance has been put under contract. There is every reason to believe that the State will subscribe to this work if it is desired. Next comes the Georgia and East Tennessee road, which now runs to Dalton in Georgia, a distance of 115 miles, leaving 40 miles to reach Chattanooga, by the State road of Georgia. This distance will hereafter be saved by leaving the Georgia and East Tennessee road at Cleveland and running direct to Chattanooga, which is the same distance from Knoxville that Dalton is.

This road is in a rapid course of construction—even the iron, locomotives and cars have been purchased. In this road the State of Tennessee holds a large interest. From Chattanooga, we will use 40 miles of the Nashville and Chattanoogo railroad, which is under contract. Then comes the Memphis and Charleston railroad, 280 miles long. For this road $1,500 000 have already been subscribed by individuals, and the aid of the State can be obtained if necessary. But the citizens of that country have already displayed a degree of enterprise and public spirit which gives assurance of success. Some idea may be formed of the favorable direction of this route, from the fact that, in the 320 miles from Chattanooga to Memphis, there is not a variation in latitude of more than 30 miles. The whole variation between Richmond and the farthest southern extremity of this line of roads will be only 2¼ degrees of latitude. By a glance at the map, the remarkably favorable direction of the whole route from Memphis by way of our road to Boston, cannot fail to strike any one who will take the trouble to examine it.

Virginia.

Winchester and Potomac Railroad.—By the last annual report of this company it appears that the earnings of this road for the year ending Oc. 1st, 1850, is $96,862 60, being $5,427 27 more than last year. Of the whole sum received, $23,861 37 was for passengers, the whole number carried over the road for the year being 15,038, and the am't. of tonnage transported over the road is as follows:

Tonnage Eastward.

Flour, 211,858 bbls.....tons	21,185
Merchandise and produce	2 239
Iron, pig and bloom	1,523
Manganese	158
Tonnage Westward.	
Merchandise	9 824
Plaister	3,099
Coal	1 370
Aggregate	38,398

Statement of the Financial Condition of the Company on the 30th Sept., 1850.

Captal stock	$180 000 00
Funded debt, due in 1857	120 000 00
Annuity to the state, $5,000 principal.	83 333 33
Floating debt	26 082 57
	$409,415 80

A semi annual dividend of six per cent was paid on the first of May last, and the board declared a dividend of six per cent, payable the first November inst. The above is 32 miles long.

Indiana.

It is a subject of general remark, that there is no State in the Union where railroad enterprise is more widely spread than in Indiana. Whether we look east, west, north or south, we see our enterprising citizens engaged in constructing railroads; while here at the capital, all the roads seem to centre in noisy uproar upon our Union track, by which they are connected together as extensions of each other. We give, for future reference, as well as to show how true the above remark is, a brief statement of our railroads, completed and in progress of construction, from the best sources we have at command, and which we presume is nearly correct.

	Length.	Completed.	Constructing.
Madison and Indianapolis	88	88	—
Shelbyville and Edinburgh	16	16	—
" Knightstown	26	26	—
Rushville and Shelbyville	19	19	—
Indianapolis and Bellefontaine	83	28	55
New Albany and Salem	100	27	73
Jeffersonville	66	8	58
Lafayette and Indianapolis	61	—	61
Peru and Indianapolis	70	—	70
Crawfordsville and Lafayette	26	—	26
Evansville and Illinois	50	—	50
Lawrenceburg and Indianap.	87	—	87
Junction	38	—	38
Terre Haute and Richmond	141	—	141
Richmond and Newcastle	50	—	50
Martinsville and Franklin	20	—	20
Southern Michigan	100	—	100
Richmond and Ohio	4	—	4
Cincinnati and St. Louis	160	—	160
	1205	212	993

—*Indiana Statesman.*

Vermont.

Central Railroad.—Earnings for October, after deducting amount paid the lower roads, $35,256 46—an increase of $4,969 57 over the month of September.

Maine.

Penobscot and Kennebec Railroad.—We take the following from the Bangor Whig of the 13th inst. Our article in this week's paper in reference to the European and North American railway, or which is commonly known as the Portland and Halifax road, will show the relation which the proposed road from Bangor to the Kennebec river will bear to the leading lines in Maine.

Such are the topographical peculiarities of Maine that the line from Bangor to Waterville must always command the entire *through* travel of the State:

We are requested to state that the parties who have in charge the management of the affairs of the Penobscot and Kennebec railroad, propose to make a definite location of the line during the present year, as required by the charter. Surveys were made in in 1847 and 1848 for a route through the Sebasticook valley, and more recently a line has been surveyed through Dixmont and Unity; and another line through St. Albans, Dexter, &c.

We are informed that by either route a good line could be formed, and the difference in distance between the two first named is but a few miles only.

In order to act understandingly in the matter, may become necessary to survey both lines anew, and possibly examine a still farther route through Plymouth and Etna.

For the purpose of giving a fair hearing to all parties interested, those residing on the line, at each terminus, and on the competing lines from Portland to the Kennebec valley; it is proposed to take up conditional subscriptions to the stock on each line—at Bangor, Waterville, Augusta, &c., and books of subscription will be prepared for this purpose.

Those who desire the line located in the Sebasticook valley, will subscribe upon the condition of its being so located—those desiring the southern route, through Dixmont, &c., will subscribe on the condition of its location on the general line surveyed through Dixmont, Unity, &c., and the same of the next southern route through St. Albans and Dexter.

It is proposed also to take offers of the right of way, on the different lines, so that in a proper *quation* of all the points of difficulties or of advantage, the best conclusion can be reached.

Should the two short lines be found on close examination to be nearly on a par, when all the engineering points are fairly equated, the amount of comparative subscription to stock or in the cession of lands would necessarily have an important influence upon the decision of the question of the route. We would therefore advise the friends of each route to bestir themselves betimes.

Again the question of connection at the Kennebec river, becomes important to the two roads, and from thence to Portland. This necessarily involves the question of *guage*. This question may have to be settled in the same way as the question of route. The friends of the narrow guage to Augusta must bid sharp or they may be surpassed in their exertions by the friends of the broad guage from Waterville to Portland. We understand conditional subscriptions will be taken up at Bangor, as well as along the two lines to Portland, with a view to test the strength of these two interests, and the feelings at Bangor upon the question of 'guage,' 'through route,' &c.

Cotton Factories at the South.

It is estimated that there are now in operation in Georgia, 40 cotton factories, which employ nearly 60,000 spindles, and consume 40,000 bales of cotton annually. In Tennessee there are 30 cotton mills; in South Carolina 16, and in Alabama 12, making 96 factories in these four states. The mills in South Carolina contain 36,000 spindles, and consume 15,000 bales of cotton yearly. In Alabama there are 12,500 spindles in operation, requiring 5,500 bales of cotton yearly for consumption.

As an offset to the above interesting particulars we note the following:—

The Providence Journal contains a list of twenty cotton mills within 40 miles of that city, which

have been compelled to stop. A large manufacturing establishment at Willimantic, Conn., has failed.

Tennessee

Railroad to Cleveland.—The last Legislature granted a charter for a railroad from Chattanooga to Cleveland, to pass by, or near to Harrison; and the following named gentlemen were appointed commissioners, viz:

James A. Whiteside, Robert M. Hooke, John Cowart, Thomas McCallie, Reese B. Brabson, Benjamin R. Montgomery, Thomas Crutchfield, David N. Bell, A. G. W. Puckett, Richard Henderson, Wm. Clift, George Luttrell, Daniel C. Kenner, P. J. R. Edwards, Samuel L. McCole, and S. J. Goric.

There was to have been a meeting of the commissioners in Chattanooga on Monday, the 18th inst., for the purpose of taking initiatory steps towards carrying the object of the charter into effect; at which time a full attendance of the commissioners is expected.—*Chattanooga Gazette.*

A NEW APPLICATION OF STEAM TO THE ENGINE.

We were very much interested, a few days ago, in witnessing the practical operation of a steam engine, invented by Mr. Clark, foreman for Messrs. Kingsland and Lightner, and which is to be seen at the foundry and machine shop of Messrs. Lightner and Ferguson, on Second street, between Green and Morgan. The principal novelty about it is, *the application of the steam to the cylinder.* In this, all the usual machinery of cams, valves, slides, &c., are dispensed with. Its intrinsic value consists in its entire simplicity, and the improbability of its ever getting out of order. The cylinder lies horizontal, vibrating on the centre. At each end of the cylinder there is a jog, or flat, smooth surface, with one aperture, working against a corresponding jog or flat surface, having two apertures.—When the steam is let on, it passes through one of these apertures in the centre jog into the cylinder and sets it in motion; and as the cylinder vibrates up and down, it lets off the other without the aid of steam cheat, or any of the usual and multiplied machinery. It is difficult, without drawings, to describe it to the reader's understanding, but we must say that it is the simplest form of a steam engine, and has less machinery about it than any invention we have yet seen. Another improvement is in the piston rod, which is coupled directly on the crank, passes entirely through the cylinder, and having bearings at each end, prevents the cylinder head from cutting or wearing. It requires less steam, and any one can keep it in order. The present one, which is a small one, of only thirteen inches stroke, performs the same service that is performed by another in the same shop of five feet stroke. From the absence of all complication of machinery, it can be furnished at a very low cost, compared with those in use, and is eminently adapted to various purposes. The best recommendation we can give, is to invite an examination of it. The parties interested have taken the necessary steps to secure a patent.—*St. Louis Republican.*

Alabama.

Alabama and Tennessee River Railroad.—We have the gratification to announce that contracts have been made on favorable terms for the graduation, masonry and bridging of our road to Montevallo. The principal contractor is Col. Waller D. Riddle, of Talladega, the able and efficient contractor on the Mobile and Ohio railroad, a gentleman whose eminent qualifications in his business, and energetic character, give every assurance that the work will be speedily and well executed.

We congratulate the friends of our great enterprise upon the certainty of its completion, and the energy with which it has been carried into execution. Much credit is due to the president and directors of the company for the unexampled progress of the road. But one year has elapsed since the books were first opened for subscription—then all was doubt and hesitation—now with the stock and the appropriations of the legislature the means of the company exceed $1,200,000. All the surveys, making an aggregate of a thousand miles, and all the estimates, etc., necessary to determine the location of the road, have been made, and about 56 miles of the road are under contract. We challenge a comparison with any enterprise in the country. We are assured that the next 4th of July we will have the pleasure of celebrating the advent of the iron horse in the Mulberry valley.

Arrangements are making to place under contract from fifty to sixty miles of the road in Talladega, Benton and Cherokee counties early this winter.—*Selma Reporter.*

Railroad Cars Without Dust.

The following is a description of an invention for the purpose of shutting out dust from railroad cars. The inventor is Mr. Nelson, for Goodyear of this city:

On the roof of the car a number of ventilators are arranged, so as to allow the air to pass freely into the car when it is in motion. The mouths of these ventilators are covered with a fine wire cloth through which the air circulates freely, but which effectually stops all cinders and other dirt. In each window of the car is placed a sash of blinds, constructed of plates of brass four inches wide. These blinds are so arranged that they are all moved by a connecting rod, in the same manner as ordinary window slates are opened or shut. The air, coming through the ventilators, passes with a gentle current out of the blinds, or "car dusters," as they are called, the outward current thus formed effectually preventing the entrance of a particle of dust into the car, and the outside current, formed by the motion of the car, carrying the dust to the rear.

The Steamship Monumental City.

This splendid steamship, the launching of which from the yard of Mr. J. A. Robb, we noticed some two months since, has now all her machinery in, and in a short time will be prepared to start for her destination in the Pacific. She made what is called the "engineer's trip," for the purpose of testing her machinery, on Thursday evening, running down below Soller's Point Flats and back. Her engines, we learn, worked most satisfactorily and beautifully, without the least jar, and driving her through the water at about the rate of twelve miles an hour. She started on her regular trial trip yesterday afternoon, with a number of gentlemen on board who were invited by the owners to witness her performance. The intention is to go as far as Cape Henry and perhaps run out to sea for a short distance, in order to thoroughly test her machinery and ascertain her qualities. We expect on her return to be able to give a good account of her in both these respects.

The "Monumental City" is certainly a most beautiful vessel, her sharp clipper model and graceful appearance, challenging the admiration of all who have seen her since she has been fitted up.—She is a propeller steamship, her burden being about 750 tons. She has two engines of 200 horse power, built by Messrs. Murray & Hazlehurst, the propeller being one of Smith's screw propellers, an English Patent. The "Monumental City" is owned by Captain Norris, who is to have command of her, and other gentlemen of this city. The intention is to run her between ports on the Pacific, probably Panama and San Francisco; and she will sail from here for the latter port with passengers and freight. She has a first and second cabin, affording accommodations for about 250 passengers. Her passenger accommodations are of the most superior character; the state rooms being fitted up with much elegance and abounding in conveniences. She has a flush promenade deck extending the whole length of the vessel, affording the passengers ample room for exercise during pleasant weather, an advantage which will be appreciated by all, and with her many other good qualities make her a favorite among the steam vessels on the Pacific.—*Balt. Am.*

Montour Iron Works.

For several months past, the large anthracite furnaces of the Montour Company have been undergoing thorough repairs, under the supervision of the Messrs. Grove, and will now soon be ready for another long, and we hope a prosperous blast of two or three years, without serious interruption.—In addition to the repairs making to the furnaces, the Montour Company have lately made another large addition to their mammoth rolling mill. For some time past the rail mill has been moving on in the manufacture of railroad iron very steadily and successfully.—*Danville Intel.*

RAILROAD DEPOT AT POTTSVILLE.

The Miners' Journal states that notwithstanding the repeated obstacles thrown in the company's way in the erection of a new depot, they have commenced operations, and the work is now rapidly progressing. The building will front on Centre street, immediately beside the American House, extending back to the railroad. The location is a desirable one, and when ready for use, will obviate the inconvenience so justly complained of by the travelling community in the delivery of themselves and their baggage at the Pottsville end of the line.

Testimonial of Respect.

Mr. John Russell, Jr., who has for many years been Superintendent of the Portsmouth, Saco, and Portland railroad, having resigned his office to accept a similar position in the Kennebec and Portland railroad company, those formerly associated with him, have presented to him an elegantly chased silver pitcher and goblet with the following inscription—

"Presented to
JOHN RUSSELL, JR.,
as a token of respect and esteem,
by those
associated in his employ
during his connection with the
Portsmouth, Saco, and Portland Railroad,
November, 1850"

FINAL OPENING OF THE BRITANNIA BRIDGE.

The permanent public opening of the new line of tubes for the down line from London to Dublin took place on Monday morning: the great structure being now in all respects made complete. On saturday, Capt. Simmons, the government inspector, went over it early in the morning, and instituted, in conjunction with the engineers, a long series of experiments. The first and principal experiment consisted in passing the locomotive engines thro' the tube, and resting them at intervals in the centre of the sections. About nine o'clock a train of twenty-eight wagons and two locomotives with two hundred and eighty tons of coals was drawn into all four of the tubes, the deflections being carefully noted. These deflections in every case, by means of a nice apparatus for the purpose, were ascertained to be exactly three-fourths of an inch under this load, over the immense mass and area of iron.

After an interesting rehersal of these experimental ordeals, which occupied several hours, the train of two hundred and eighty tons, with its two locomotives, was taken out about a mile distant from the tube, and then suddenly shot through it with the greatest attainable rapidity, and the result was very interesting as determining a much discussed question, it being found that the deflection at this immense velocity of load was sensibly less in the way of undulation or collapse than when the load

was allowed to remain at rest in the tube. The manner in which these results were registered and arrived at was by means of a new and curious contrivance, it being found that the tremor occasioned by trains in transit prevented these deflections from being accurately read by the ordinary spirit level. —*London paper, Oct.* 25.

Utica Iron Manufacturing Co.

This company are now actively engaged in the manufacture of iron on a large scale. The Utica Gazette says "that over 1,500 tons are manufactured yearly, whose quality meets the approbation and secures the patronage of machinists and others in that line, throughout the country. Preparations are now making to enlarge still further the facilities for doing business. The works are under the superintendence of Mr. A. G. Smith, whose capacities and business qualifications are evidenced by the completeness and adaptation of every part of the complicated apparatus, which was erected under his supervision, and by the regularity and economy, which mark the progress of the manufacture."

The directors of the company are Alfred Churchill, Julius A. Spencer, Henry R. Hart, Elijah P. Williams, William G. Bullions, T. S. Faxton David A. Lyons, A. G. Smith and Andrew S. Pond.

The officers are Andrew S. Pond, President; A. G. Smith, Secretary; and Henry R. Hart, Treasurer.

We are glad to learn that this company are doing a prosperous business, notwithstanding the general depression which prevails in the iron manufacture.

Interesting Discovery.

The model of the first steamboat (built by John Fitch) was discovered, a few days ago, in the garret of the late residence of the late Col. Kilbourne a brother-in-law of John Fitch, near the town of Columbus, in Ohio. It has been in the possession of Col. K. for more than thirty years. It is thus described in a letter to the Cincinnati commercial:

"It is about two feet long, and set upon wheels. The boiler is about a foot long, and eight inches in diameter, with a flue through it, not quite in the centre, into which the fire appears to have been placed. The cylinder stands perpendicular, and the framework that supports it is not unlike that now used by some of the low pressure boats on Lake Erie. There is a paddle wheel on each side, and, in fact, everything appears to be complete with the exception of a condenser and force pump. The boiler is even supplied with a safety valve, though part of it has been broken off."

Ohio.

The Columbus, Piqua and Indiana Railroad, a Link in the Great Central Chain of Railway from the Ohio River to St. Louis.—Artificial systems of facilitating intercourse between the most remote districts of country, have reached their climax in the railroad improvement. The experiment of this agency for purposes of communication for the last twenty-five years, has resulted in its adoption as the grand mode of transportation, excelling all other methods in rapidity, uniformity of action, and efficiency of operation in all latitudes and in all seasons. The enterprise, in its extension and effects, has far exceeded the anticipations of its projectors. It has become the prominent feature of the age, in which more general interests are embraced than in any other industrial achievement, or measure of public benefit. In it are not only individual capital and industry embarked to an enormous extent, but the energies of governments themselves are enlisted into a hearty co-operation to carry on a system of improvement which will conduce to the growth and prosperity of a country at large equally with its lakes, rivers and canals.

The progress of railway communication in the old world in its rapidity and extent excited our wonder. Already has she connected her kingdoms by these links of iron, and now nearly one continuous chain runs through the heart of Europe, taking in its course Paris, Brussels, Cologne, Antwerp, the Rhine, Berlin, Warsaw, Leipsic, Vienna, Switzerland and Venice. The "City of the Czars" will soon be but a few days distant from the "City of Popes," and London nearer Paris (only 11 hours distance) than to either of her own Provincial Capitals, Edinburgh or Dublin.

On our own hemisphere railway lines are projected, spanning the continent from ocean to ocean. The maps of the territories of the States, with lines of railroads *in operation, in progress, and contemplation* marked upon them, crossed and re-crossed like the woof of a spider's web, exhibit the vastness of this enterprise. Even Cuba has her 114 miles of railroad. The stupenduous enterprises of the Pacific railways, the Panama, Nicaragua and Tehuantepec lines, all create an epoch in the annals of the world's advancement in commercial greatness. The railroad enterprise in the United States surpasses that of any European country, in extent of lines, economy of construction, amount of patronage, and permanency and value of stocks.

The northern, eastern and middle States have almost rivalled the gigantic projects of the old world in number and extent of roads, tieing by chains of railway every town, village and city within their sovereignties to their capitals, and connecting one State with another, that the Union between them is made tighter and firmer by this bond, than State leagues and compacts could possibly effect. The southern States are in no wise indifferent to the advantages of railroad improvements; and a spirited and necessitous effort through this agency is now being made to counteract the mighty influence which is drawing off the trade of the far west, hitherto tributary to them, to eastern markets.

The resources of a vast extent of country, almost irreclaimable, and unattainable, through this means will be developed, and a great social and commercial revolution worked out for that interesting portion of our national domain.

So long as no great central land route is created to intercept or give direction to the products of the west, the lakes will ever be the great inland "Exchange" of its wealth. The tendency of its trade through these great outlets to the eastern markets has been rapidly growing for years past, and the great commercial cities of the interior, St. Louis, Louisville and Cincinnati, heretofore commanding and controlling its business for southern marts, have become mere changing depots upon the grand chains of communication with the eastern seaboard. New Orleans, up to the year 1825, the successful rival and competitor of New York is fast losing her supremacy over the trade of the great west.—As long as these vast and fertile regions remained an isolated district, a *terra intacta* by any artificial communication with the eastern cities, so long did the great city of the southern seaboard direct and wield the commercial destinies of this territory.—But since the main channels of her commerce were tapped, and foreign connections made with them, her life's blood flowed into these arteries, exhausting the old, and vivifying the new system.—Take the city of New York, as to her influence alone upon the trade of the great west. Located as she is upon an Atlantic bay, giving harbor to the shipping of the world; at the terminus of the Hudson river, having a tide navigation into the interior of the State to an extent of 150 miles, commanding the products of a highly cultivated and wealthy district of country; she, up to the year 1825, yielded to Philadelphia, with far inferior local advantages in point of commercial importance. New York was then shut out from the great inland trade, which sought its market in New Orleans, and those cities more contiguous to the basin of the great west. The disadvantages arising from this too great loss of the chief wealth of the country, induced a vigorous action to secure it, by efficient channels leading to the points of accumulation.—The construction of the Champlain and Erie canals first gave her a grasp upon the treasures of the territory of the northwest. The waters of the Mississippi, soon to become united with those of the lakes by the Illinois and Chicago canal, and through this continuous channel of water communication, with her chains of railway, flow the mighty products of the south, southwest and northwest portions, giving to that city alone produce to the value of $60,000,000 per annum, equal to two-thirds of our entire foreign commerce. The eastern cities then, from the natural tendency of the trade of the west, must ever become the great disbursing reservoirs of its resources, if facilities of intercourse are afforded. It is a feature in railroad communication, that "it is not arrested by drought, nor suspended by frost." During nearly half the year the check upon the traffic of the west, by closed canals, and rivers, and ice-bound lakes, either drives the stocks of produce bordering upon southern channels to southern markets, subject to the various vicissitudes of uncertain navigation and destructive climate, or leaves them in inert destructible heaps along the highways of transportation. Railways in their constant uniformity of action, break this embargo, and give a free and perpetual outlet to the active points of demand and consumption.

Under a full appreciation of the still greater advantages to be derived by a more uniform system of communication with the west, the Eastern States have of late years freely exerted their enterprise and capital to this end. Avenues are being constructed to the boundary of the west at its every point. The attitude which eastern enterprise has assumed of invitation and solicitude to that of the west to bring side by side the great points of production and consumption, and thereby secure incalculable advantages to both sections of the country, is such that no delay or hesitation has been evinced in gaining this mutual benefit. With this view, the State of Ohio, since, 1836, has made a progress in railway undertakings equal to that of any other State. Occupying a midland position between the eastern seaboard and the confines of the great west, she will become at no distant day the arena where the Atlantic cities, from Boston to New Orleans, will throw in their capital and influence to struggle for their moieties of the trade of the western valley which will here concentrate for allotment and distribution. The majority of the lines of railway in this State have for their object the conduction of the trade of the great western valley, drained for the most part by the St. Lawrence and Mississippi rivers, to their northern outlets at Quebec, Boston and New York, though a large portion of the productions of the two great basins of this valley can never be diverted from their legitimate channel to New Orleans. The tendency of this immense travel and property to the lake shore, and her northern passages only served to enrich the Canadas, and the cities of Boston and New York, while the marts of Baltimore and Philadelphia

were in a measure cut off from any of its advantages.

These latter cities with the design to cope with the northern avenues, and control the vast traffic of the west, projected two of the most stupendous undertakings of which our country can boast, viz., the "Baltimore and Ohio" and "Pennsylvania Central railroad," having their terminii at Wheeling and Pittsburg on the Ohio river. On the continuation of the former line from Cumberland to Wheeling, great efforts were at once made to continue this chain through the States of Ohio, Indiana and Illinois to the Mississippi river at St Louis. Each State through which this route lays became enlisted in the enterprise, and individual capital and industry were bent to the utmost, to further this great undertaking. This grand central chain of railway, or so much of it embraced between Wheeling and the Indiana State-line, comprises two divisions. The first, composing 149 miles between the Ohio river and Columbus, and extends through the counties of Belmont and Guernsey, Zanesville, the capital of Muskingum, Newark, the capital of Licking county, to Columbus, the capital of the State, in Franklin county. The second division, constitutes 99 miles of the chain between Columbus and the Indiana State-line, and is called the Columbus, Piqua and Indiana railroad.* This line passes through Madison county, Urbana, the capital of Champaign, the city of Piqua, in Miami county, and Greenville, the capital of Darke county. It will be noticed that this route lies through a central tier of counties, the most important, populous and wealthy in the state; and taking in its course, for the most part, all of the principal cities in Central Ohio.

At the Indiana State-line a junction is formed with the western trunk of railway extending thro' Indianapolis to St. Louis. There is created for the State of Ohio a central railroad running on or near the 40th parallel from its eastern to its western border—giving it not only the advantage of an indispensable portion intermediate to a great eastern and a great western chain, but the pre-eminent position of a *terminal chain*, intercepting and concentrating upon it the traffic of numerous canals and railroads which intersect it. Viewing this Ohio line as a constituent part of a gigantic thoroughfare extending from the cities of the Atlantic to the Mississippi, and which enterprise in its march may extend to the shores of the Pacific, and thus become "the grand highway of nations;" and regarding it as a chain connecting the whole system of western railways—stretching through regions isolated and unpopulated—establishing and invigorating industrial interests in remote districts—developing and bringing within our reach their hidden wealth; its importance cannot be fully realised, as a means of great commercial advantage, but in establishing the blessings of a social and political state of things wherever it penetrates.

Piqua, O., Nov. 16th, 1850.

* The Columbus, Piqua and Indiana railroad company was chartered February 23d, 1849, with a capital of $2,000,000, and organized February, 1850, with Judge M. G. Mitchell as President.—Subscriptions to this road have been made to the amount of $500,000 by county townships and individuals. The entire line of 99 miles is under the direction of A. G. Conover, Chief Engineer in preparation for letting. 22 miles will at once be placed under contract, and the balance as soon as ready. The majority of the road from Columbus eastward to Wheeling is in progress of construction, as also portions of the line westward to the Indiana State-line through Indianapolis to St. Louis. Thus the entire line from the Ohio river at Wheeling to the Mississippi will in the space of three years be in full operation, while the other projected connecting lines from Louisville, Jeffersonville, New Albany, Lawrenceburg, Evansville, Terre Haute, Lafayette and Peru, with the Chicago and Winchester road will be made. The immense amount of way and through business necessarily thrown upon the Columbus, Piqua and Indiana road, from the vast operations upon its eastern and western prolongations—the freight and travel passing upon it, by its intersection with the Mad river railroad at Wabash, and the Miami Canal at Piqua—with its heavy local trade, are considerations which must render this line of railway productive of large remunerating profits to its stockholders, and well worthy of the attention of capitalists.

AMERICAN RAILROAD JOURNAL.

Saturday, November 23, 1850.

Wrought Iron Chairs for Railroads.

It has always been felt, that there are serious objections to the common cast iron chair in use on railroads. These have, on some roads, been entirely dispensed with, and the rail has been confined in its place by spikes alone. The necessity, however, of some kind of a chair is admitted, and attention is now turned to the invention of a wrought iron one, which shall obviate the objection to which the cast chair is liable, and secure all the advantages of its use. We have been shown a specimen of an imported wrought iron chair, by the Agent of the Britain Ferry Iron Co., which appears well adapted to its use. It is similar to the chairs which have recently been put down on the Cleveland and Columbus railroad. It can be furnished at a much less cost than the cast chair, to which we believe it to be much superior in all respects. We are fully satisfied that wrought iron chairs will soon take the place of cast, on all our roads.

Boardman's Improved Steam Boiler.

We beg leave to refer our readers to an advertisement in another column of an improved locomotive and stationary boiler. The maker claims to have invented one that consumes *all the smoke*, or rather *all the fuel* supplied; and that consequently generates much more steam than any now in use. We have carefully examined one of these boilers, which has been in constant use in this city for six months past; and we are fully satisfied that it is all that is claimed for it. Its shape may be termed that of an *upright conical boiler*, though the form may be varied as the case may require. The tubing, instead of running through the boiler horizontally, is inserted vertically in a projection which runs entirely around it with the exception of the front. This projection is about three feet above the surface of the fire, and extends a short distance below the bottom of the grate, where the tubes terminate in a smoke chamber connecting with the chimney. This makes the top fire chamber much larger than the bottom, the projection or drawing in of the boiler in the one examined, being sufficient to allow three rows of tubes.

MR. HALE:—"The New England Car Co., having been engaged for the last six months in introducing the Vulcanized India-rubber Car Spaings upon the different railroads in this and other states, and having in particular introduced it upon the Boston and Worcester railroad with perfect success, were much gratified to find, by your paper of this morning, that the article had given satisfaction to the president of that corporation, and the terms of just commendation in which you were pleased to speak of it. But their gratification was scarcely equalled by their surprise, when, or arriving at the close of your paragraph, they found the results of all their labors attributed to a foreign source, with which the New England Car Co. has no connection. The material used on the Boston and Worcester railroad, and all the other railroads in this country, where any preparation of India-rubber has been successfully applied, is entirely an American invention, patented in the year 1844 to Charles Goodyear, of New Haven, Conn., and the application of it to this purpose and the form in which it is applied are the invention of F. M. Ray of New York. The only material now in use, and so far as has yet appeared, the only preparation of India rubber capable of answering the purpose, has been furnished under these patents by the New England Car Company, manufactured under the immediate inspection of their own agent. If any other should be produced, the right to use it would depend upon the question of its interference with Mr. Goodyear's patent. The New England Car Company have their place of business in this city at No. 99 State street, and are prepared to answer all orders for the Vulcanised India rubber Car Springs, of the same quality and of the same manufacture as those which they have already placed on your road, and most fo the other roads terminating in this city."

And yet Mr. Knevitt is using these experiments made upon the Springs of the Car Company to induce the public to purchase his springs, and is attempting to impose upon them the belief that the springs used were furnished by him! We ask whether such a course is honorable, or entitles his statements to much consideration from the public.

The above Springs are for sale 98 Broadway, New York, and 99 State street, Boston.

EDWARD CRANE Agent, Boston.
F. M. RAY, Agent, New York.

Boston, May 8, 1849.

STABILITY—SECURITY—PERPETUITY.

Mutual Life Insurance Co. of New York.

No. 35 WALL STREET.

A MILLION OF DOLLARS

Securely invested in Bonds and Mortgages on real estate in this city and Brooklyn, and stocks of the State and City of New York and United States Government.

The company declared a dividend of profits of fifty-two per cent. on all existing policies on the 31st of January, 1848.

All the Profits are Divided Among the Insured.

Persons may effect insurance on their own lives and the lives of others.

A married woman can insure the life of her husband, the benefits of which are secured by law for the exclusive use of herself or children.

Clergymen and all others dependent upon salaries or their daily earnings are specially invited to avail themselves of a resource whereby their surviving families may be secured from the evils of penury.

Pamphlets explanatory of the principles of Mutual Life Insurance, and illustrating its advantages, with forms of application, may be obtained at the office of the company, 35 Wall street, or of any of its agents.

TRUSTEES.

Jos. B. Collins,	Abraham Bininger,
Wm. J. Hyslop.	Alfred Edwards,
R. H. McCurdy,	Wm. Betts,
Fred. S. Winston,	Joseph Blunt,
C. W. Faber,	Isaac G. Pearson,
John P. Yelverton,	Henry Wells,
Theo. Sedgwick,	Wm. Moore,
Stacy B. Collins,	George R. Clark,
John H. Swift,	Jona. Miller,
John Wadsworth,	David A. Comstock,
S. M. Cornell,	Robert Schuyler,
Gouv. M. Wilkins,	James Chambers,
John V. L. Pruyn,	Joseph Tuckerman,
Jas. S. Wadsworth,	Moses H. Grinnell,
Charles Ely,	Wm. J Banker,
John C. Cruger,	John M. Stuart,
Charles King,	Francis S. Lathrop,
Alfred Pell,	Nathaniel Hayden.

JOSEPH. B. COLLINS, President.
ISAAC ABBATT, Secretary. 3m9

Engine and Car Works,

PORTLAND. MAINE.

THE PORTLAND COMPANY, Incorporated August 8th, 1846, with a capital of $250,000, have erected their extensive Works upon the deep water of Portland Harbor, and receive and transport, to and from their works direct, to and from vessels of any class.

They now manufacture to order, and deliver upon the Railroads running in each direction from the city, or on shipboard as wanted, Locomotive, Stationary, or Steam Boat Engines; Passenger, Mail, Freight, Earth and Hand Cars; Railway Frogs, Switches, Chairs and Castings; and every other description of Machinery.

HORACE FELTON,
Superintendent.

JAMES C. CHURCHILL,
General Agent and Clerk.

Rosendale Cement.

THE NEWARK AND ROSENDALE LIME AND CEMENT CO. are now manufacturing at their works in NEWARK, N. J., and Ulster county, N.Y., a very superior article of *Hydraulic Cement*—also Lime Calcine Plaster, etc. Contractors and dealers will find it to their advantage to call or make application before purchasing elsewhere. All communications addressed to the subscriber, at Newark, N.J., will be punctually attended to.

1y*15 HENRY WILDE, Secretary.

RAILROADS.

BOSTON AND MAINE RAILROAD.

Summer Arrangement, 1850.

Outward Trains from Boston

For Portland at 7, 11, am. and 4½ pm.
For Great Falls at 7, 11, am., 4½ pm.
For Haverhill at 7, 9, 11 am., 2½, 4½, 6½, pm.
For Lawrence (South Side,) 7, 11 am., 2½, 4½, pm.
" (North ") 7½, 9, a.m 12m., 5, 6½, p.m.
For Reading 7, 9, 11 am. 12m. 2½, 4½, 5, 6½, 7½, 9½ pm.
The Station in Boston is on Haymarket Square.

THOS. S. WILLIAMS, Super't.

July 1, 1850.

EASTERN RAILROAD.

SUMMER ARRANGEMENT.

On and after Monday, June 17th, 1850, trains will leave Boston daily (Sundays excepted);

For Lynn, 7, 9½, 11 a.m., 12 m., 2½, 4½, 5, 6, 7 p.m.
Salem, 7, 9½, 11, a.m., 12 m., 2½, 3, 4½, 6, 7 pm.
Manchester and Gloucester, 9½ a.m., 3, 6 p.m.
Marblehead, 7, 9½, 12 a.m. 2½, 4½, 6, 7 p.m.
Ipswich, 7, 11, 12 a.m., 2½, 4½, 7 p.m.
Newburyport, 7, 11, 12 a.m., 2½ 4½, 7 p.m.
Portsmouth, 7, 11 am., 4½, pm.
Portland, Me., 7, 11 am., 4½, pm.

And for Boston,

From Portland, 5, 10½ am., 5 pm.
Portsmouth, 7½,* am., 1, 7½*, pm.
Newburyport, 6½, 8*, 11½ am., 1½*, 5, 8 pm.
Ipswich 7·40, 8·35, 11·42 a.m. 2·20, 5·22, 8½.
Gloucester, 7½, am., 1½, 8 pm.
Manchester, 7 am., 2 pm.,
Salem, 6½, 7½*, 8½*, 9½, 10½ am., 12½*, 2½* 3,* 6*, 9*, pm.
Lynn, 6½, 7½*, 8½*, 9½, 10½ am., 12½*, 2½*, 3½ 6½*, 9½* pm.

* *Or on their arrival from the East.*

Freight trains each way daily. Office 17 Merchants' Row, Boston.

JOHN KINSMAN, Superintendent.

ALBANY AND BUFFALO RAILROADS.—Four Trains daily, Sundays excepted, viz: Leave Albany, 6 a.m., 9 a.m., 2 p.m., 7 p.m. Reach Buffalo, 15 hours, 18 hours, 23 hours, 18 hours. Arrive from Buffalo, 7 p.m., 2½ a.m., 12½ m., 3½ p.m.

Passengers by the *Express Train* reach Buffalo from New York, and New York from Buffalo, in 24 hours. The Isaac Newton and Oregon connect at Albany with this Train. Baggage cars, with careful baggage masters, run through with all the trains.

For Schenectady, Saratoga Springs & Whitehall, Leave Albany at 7 a.m. and 2 p.m. For Schenectady only at 6, 7 and 9 a.m. and 12½, 2 and 7 p.m. For Erie Canal packets at 7 a.m. and 7 p.m. By Plank Road from Schenectady to Saratoga at all hours by stages, etc.

The *Eastern Trains* leave Albany at 7 a.m. and 3 p.m. The wagons of the company take baggage *free* between railroads and steamboats at Albany.

E. FOSTER, Jr., Sec'y
Albany and Schenectady Railroad Co.
Albany, August, 1849.

NEW YORK AND HARLEM RAILROAD.

WINTER ARRANGEMENT.

On and after Monday, October 21st, 1850, the Cars will run as follows, (Sundays excepted) until further notice:

Trains will leave the City Hall, New York, for—
Harlem and Mott Haven, 7½, 10, 11½ a.m., 1½, 3, 3½, 4, 4½, 5½, 6½, 10½ p m.
Morrisania Village, 7½, 10, am., 1½, 3½, 4½, 5½, 6½, 10½, pm.
Fordham, 7½, 8½, 10, am., 1½, 2½, 3½, 4½, 5½, 6½, 10½, pm.
Williams' Bridge, 8½, 10, am., 2½, 3½, 4½, 6½ pm.
Hunt's Bridge, Bronxville, Scarsdale and Hart's Corners, 8½, 10 am., 3½, 4½ pm.
Tuckahoe and White Plains, 8½, 10 am., 2½, 3½, 4½, pm.
Pleasantville, New Castle, Bedford, Mechanicsville, Purdy's, Croton Falls, and intermediate stations, on signal, 8½ am., 2½, 3½ pm.
Brewster's, Towner's, Patterson, Paulding's, South Dover, Dover Furnace, and Dover Plains, 8½ am., 2½ pm.

NOTICE—The trains leaving City Hall for Fordham at 7 30 am., and 1 30, 5 30 and 6 30 pm., and for Mott Haven and Harlem at 7 30 and 11 30 am., and 1 30, 4, 5 30 and 6 30 pm.; returning from Fordham, 5 45, 7 15 and 9 am., and 3 and 7 pm., and Mott Haven and Harlem, 6 05, 7 30, 9 15 am., 12 30, 3 16, 5 15, 7 15 pm., are Local Accommodation trains, for which there is a special reduced rate of commutation.

Passengers are reminded of the great danger of standing upon the platform of the cars, and they are hereby notified that the practice is contrary to the rules of the Company, and that they do not admit any responsibility for injury sustained by any passenger upon the platforms, in case of accident.

Returning to New York will leave
Harlem and Mott Haven, 6 7½, 8 35, 9½, 10 20, am., 12½, 3 05, 3½, 5½, 7½ pm.
Morrisiana Village, 5 53, 7 23, 8 28, 9 08, 10 13 am., 2 58, 3 08, 5 05, 4 08 pm.
Fordham, 5½, 7½, 8 20, 9, 10 05, 10½ am., 2 50, 3, 5, 7 pm.
William's Bridge, 5 40, 8½, 10, 10 40 am., 2½, 4½ pm.
Hunt's Bridge, 8 06, 9 50, am., 2 36, 4 38, pm. On signal.
Bronxville, 7 58, 9 41 a.m., 2 28, 4 32 p.m. On signal.
Tuckahoe, 7 55, 9 36, 10 24 am., 2 25, 4 29 pm.
Scarsdale, 7 45, 9 25 am., 2½, 4 20 pm. On signal.
Hart's Corners, 7 37, 9 17 am., 2 07, 4½ pm. On signal.
White Plains, 7½, 9 10, 10 am., 2, 4 10 pm.
Kieco, 8 55, 9 52 am., 4 03 pm. On signal.
Unionville, 8 42, 9 44 am. 3 55 pm. On signal.
Pleasantville 8 35, 9 38 am., 3 48 pm.
Chapaqua, 8 27, 9 32 am. 3 42 pm. On signal.
New Castle, 8½, 9 21 am., 3 32 pm.
Bedford, 8 05, 9½ am., 3 26 pm.
Mechanicsville 7 55, 9 08 am., 3 19 pm.
Golden's Bridge, 7 43, 9 02 am. 3 14 p.m. On signal.
Purdy's 7 35, 8 55 am., 3 87 pm.
Croton Falls, 7½, 8 59 am., 3 02 pm.
Brewster's, 8 35 am., 2 49 pm.
Towner's, 8 20 am., 2 34 pm.
Paterson, 8 12 am., 2 26 pm.
Paulding's, 8 02 am., 2 16 pm.
South Dover, 7 47 am., 2 02 pm.
Dover Furnace, 7 40 am., 1 55 pm.
Dover Plains, 7½ am., 1½ pm.

Passengers from the stations between Twenty-seventh st. and Fordham, "going above White Plains," will take the Accommodation trains to Fordham, at 7 30 am., and 1 30 pm., and the Dover Plains train will not stop below Fordham.

The trains leaving City Hall at 7 30, 10, 11 30, 1 30, 4, 5 30, 6 30, 10 30 - returning leaving Mott Haven and Harlem at 6, 7 30, 9 15, 12 30, 3 05, 3 15, 5 15, 7 15, will land and receive passengers at 27th, 42d, 50th, 61st, 79th, 86th, 109th, 115th, 125th and 132d streets.

The Dover Plains train from New York at 8 15 am. and 2 30 pm.—returning leaving Dover Plains at 7 30 am., will not stop between White Plains and New York (except at Tuckahoe, Williams' Bridge and Fordham) unless to land passengers coming from above Croton Falls—and no fare collected less than Fordham fare.

A car will precede each train ten minutes to take up passengers in the city. The last car will not stop, except at Broome st. and 27th street.

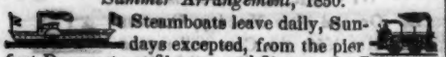
The Freight Trains will leave New York at 12 m. Returning, will leave Dover Plains at 2 pm. daily.—An Extra freight train will leave New York on Mondays, Wednesdays and Fridays at 9 am. Returning, will leave Dover Plains Tuesdays, Thursdays and Saturdays at 8 o'clock am.

For Sunday Aarrangements, see hand bills.

M. SLOAT, Sup't.

NEW YORK & ERIE RAILROAD.

Summer Arrangement, 1850.



Steamboats leave daily, Sundays excepted, from the pier foot Duane st., at 6½ a.m., and 6½ p.m., for Piermont, there connecting with the new and comfortable broad gauge cars of this road, running to Jefferson at the head of Seneca Lake in 12 hours, where passengers take the new and splendid steamer Benj. Loder for Geneva. At Geneva they take any o the trains of the central line for Rochester, Buffalo, and the west.

Breakfast and supper on board the steamboats at each end.

Express freight trains daily over the whole road in 24 hours.

FARES.

Between New York and Buffalo,		$9 85
" "	Geneva,	6 00
" "	(second class,	4 50

CHAS. MINOT, Supt.

August 1st, 1850.

NORTHERN RAILROAD, *NEW YORK.*

CARS run between Rouses Point and Chateaugay daily, Sundays excepted, as follows:

Leave Rouses Point at . . 3¾ A.M.
Leave Chateaugay at . . 6½ P.M.

On the arrival of the cars at Chataugay, stages are in readiness to take the passengers to Ogdensburg, where they arrive the same day.

Passengers leave Ogdensburg in the morning by stage, and take the evening train from Chataugay to Rouses Point, where they go immediately on board the steamboats which run north and south on Lake Champlain.

Passengers leaving New York in the evening by the way of Whitehall, will arrive at Rouses Point the next night, and the next morning pass directly from the boat to the cars, and arrive at Ogdensburg the same day. CHARLES L. SCHLATTER, Supt.

WESTERN AND ATLANTIC RAILROAD,

FROM ATLANTA, GA., TO CHATTANOOGA, TENN. 140 Miles.

PASSENGER SCHEDULE.

Leave Chattanooga daily, Sundays excepted, at 8½ a.m.

Arrive at Kingston	. . .	by 12 m.
" Dalton	. . .	by 3 p.m.
" Chattanooga	. . .	by 6 "

Leave Chattanooga daily, Sundays excepted, at 7 a.m.

Arrive at Dalton	. . . .	by 9½ "
" Kingston	. . . .	by 12 m.
" Atlanta	. . . .	by 4 p.m.

The fare is now permanently reduced to *three* cents per mile for way as well as through Passengers; children and servants *two* cents per mile.

There are two Railroad routes from Atlanta to the Seaboard, viz: one by the Georgia Railroad to Augusta, and thence to Charleston by the South Carolina Railroad; the other by the Macon and Western Railroad to Macon, and thence to Savannah by the Central Railroad.

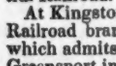
At Kingston, 60 miles north of Atlanta, the Rome Railroad branches off to Rome on the Coosa river, which admits of steamboat navigation as far down as Greensport in Ala. Mail stages are in operation from Rome leading towards Tuscaloosa, Ala., Columbus, Miss., Memphis, Tenn., etc.

At Dalton, 100 miles north of Atlanta, a line of stages branches off to Knoxville, Tenn., which will be superseded by the East Tennessee and Georgia Railroad as rapidly as the same is completed.

At Chattanooga a number of steamboats are in successful operation on the Tennessee river, and from that terminus of the road stages run to Nashville, which will be superseded by the Nashville and Chattanooga Railroad as rapidly as the same is completed.

WM. D. FULLTON, Supt. Transp.
Transportation W. & A. R. R.,
Atlanta, March, 1850.

GREAT NORTHERN & SOUTHERN MAIL ROUTE.



From New York to Charleston, S. C. daily, via *Philadelphia, Baltimore, Washington City, Richmond, Petersburg, Weldon and Wilmington, N. C.*

Travellers by this route, leaving New York at 4½ p. m., Philadelphia at 10 p.m., and Baltimore at 6 a.m., proceed without delay at any point on the route, arriving at Richmond, Va., in a day, and at Charleston, S. C., in two and half days from New York.

Through tickets from New York to Charleston, $20 00
" " Baltimore to Richmond, 7 00
" " " " Petersburg, 7 50

For tickets to Richmond and Petersburg, or further information, apply at the *Southern Ticket Office, adjoining the Washington Railroad Ticket Office, Pratt Street, Baltimore.* STOCKTON & FALLS.

LITTLE MIAMI RAILROAD.—SUMMER ARRANGEMENT.

Cincinnati and Sandusky.

FIRST Passenger Train leaves Depot on East Front street, at 5 o'clock 10 minutes A. M. stops for breakfast at Morrow, and arrives at Springfield at 11 10 A M. Leaves Springfield for Sandusky at 11 50 A. M.

Second Passenger Train leaves Depot 3 P. M. arrives at Springfield at 9 P.M. Passengers take tea at Springfield, and leaves for Sandusky at 9¾ P. M.

RETURNING—First Train leaves Springfield at 4 A. M. Stop for breakfast at Xenia, and arrives at Cincinnati at 10 15 A. M.

Second Train leaves Springfield at 2¾ P. M. Stop for tea at Morrow, and arrives at cincinnati, at 8¼ P. M.

Passengers taking the Morning Train arrive at Sandusky at 9 P. M. Those taking the Afternoon Train arrive at 7½ A. M. next morning, and proceed directly on in the boats.

Passengers for columbus, Zanesville, Wheeling, and intermediate towns, should take the 5, 10 A. M., Train.

The Ohi Stage Company are running the following Lines in connection with the Trains:

A Daily Daylight Line to Columbus from Springfield in connection with the Morning Train from Cincinnati. Also, Daily Lines to Columbus, from Xenia and Springfield, connecting with the 3 o'clock pm. train from Cincinnati.

Fare from Cincinnati to	Xenia . .	$1 90
" "	Springfield . .	2 50
" "	Sandusky city .	6 50
" "	Buffalo . .	10 00
" "	Columbus . .	4 50

For other information and through tickets, apply at the Ticket Office on Broadway, near Front-st., Cincinnati.

W. H. CLEMENT, Superintendent.

☞ The Company will not be responsible for Baggage exceeding 50 dollars in value, unless the same is returned to the Conductors or Agent, and freight paid at the rate of a passage for every 500 dollars in value above that amount.

PHILADELPHIA, WILMINGTON, & BALTIMORE RAILROAD.

Summer Arrangement.
April 1st, 1849.—Fare $3.

Leave Philadelphia 8½ am., and 10 pm.
Leave Baltimore 9 am, and 8 pm.
Sunday—Leave Philadelphia at 10 pm.
" Baltimore at 8 pm.

Trains stop at way stations.

Charleston, S. C.

Through tickets Philadelphia to Charleston, $20.

Pittsburg and Wheeling.

Through ticket, Philadelphia to Pittsburg, $12.
" " Wheeling, 13.

Through tickets sold at Philadelphia office only.

Wilmington Accommodation.

Leave Philadelphia at 12 m. 4 and 7 pm.
Leave Wilmington at 7½ am., 4½ and 7 pm.

Newcastle Line.

Leave Philadelphia at 2½ pm.—Baltimore at 1½ pm
Fare $3.—Second class, $2.

N.B.—Extra baggage charged for.

I. R TRIMBLE, Gen. Supt.

BALTIMORE AND SUSQUEHANNA RAILROAD.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger Trains

run daily, except Sundays, as follows:

Leave Baltimore at	- - -	9 am. and 3½ pm.
Arrive at	- - - -	9 am. and 6½ pm.
Leave York at	- - - -	5 am. and 3 pm.
Arrive at	- - - -	12½ pm. & 8 pm.
Leave York for Columbia at		1½ pm. & 8 am.
Leave Columbia for York at		8 am. & 2 pm.

Fare:

Fare to York	- - - -	$1 50
" Wrightsville	- - - -	2 00
" Columbia	- - - -	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG, AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg - - - - - - - $9
Or via Lancaster by railroad - - - - - 10
Through tickets to Harrisburg or Gettysburg - - 3
In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at - - 5½ pm.
Returning, leaves Owing's Mills at - - 7 am.

D. C. H. BORDLEY, Sup't.
31 1y Ticket Office, 63 North st.

PHILADELPHIA & READING RAILROAD

Passenger Train Arrangement for 1850.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock a.m.

The Train from Philadelphia arrives at Reading at 12 18 m.

The Train from Pottsville arrives at Reading at 10 43 a.m.

Fares.	Miles.	No.1.	No.2.
Between Philad. and Pottsville,	92	$3·50 and	$3·00
" " Reading,	58	2·25	1·90
" Pottsville "	34	1·40	1·20

Five minutes allowed at Reading, and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets. 8tf.

BALTIMORE AND OHIO RAILROAD AND WASHINGTON BRANCH.

On and after January 1, 1850, Passenger Trains will run as follows:

Leave Baltimore for Ellicott's Mills, Frederick, Harper's Ferry, Martinsburg, Hancock and Cumberland, every morning at 7½ o'clock. This line carries the Great Mail, and connects with Post Coaches at Cumberland, for Wheeling and Pittsburg, over the National Road. Also with the Winchester Trains, at Harper's Ferry. N.B.—Passengers for Pittsburg take the steamers of the Monongahela slack water navigation at *Brownsville*, only 76 miles from Cumberland.

Leave Baltimore for Ellicott's Mills, Frederick and Harper's Ferry, daily, except Sunday, at 4½ p.m.

Leave Baltimore for Washington City, daily, at 6 a.m. and 5 p.m.—daily, except Sunday, at 9 a.m. The early train connects with the Great Southern Line, via Fredericksburg and Richmond, to Charleston.

Leave Cumberland for Baltimore, etc., at 8½ a. m., daily, connecting with the train from Winchester at Harper's Ferry—with the Evening Train to Washington City, at the Relay House—and with the Evening Train to Philadelphia, at Baltimore. Time for arriving at Baltimore, 5½ p.m.

Leave Harper's Ferry for Baltimore, daily, except Sunday, at 7½ a. m—taking in Passengers who leave Frederick at 8½ a.m.

Leave Washington for Baltimore, daily, at 6 a.m. & 5½ p.m., and *daily, except Sunday*, at 9½ a. m. The early train connects at the Relay-House with the morning line to Cumberland and the West, and at Baltimore with the day line to Philadelphia and New York.

Through tickets are sold at *Philadelphia and Baltimore* for Pittsburgh and Wheeling, and at *Philadelphia and New York* for Charleston, S. C., at the following

RATES OF FARE.

	To Pittsburg. In winter.	Summer.	Wheeling. Win.	Sum.	Charleston.
From Philadelphia,	$13	$12	$14	$13	$20
" Baltimore,	11	10	12	11	
" New York,	. .	. .	. .	. .	20

Passengers leaving New York not later than the afternoon line via Newark, etc., reach Baltimore in season to take the next morning's lines to the South and West.

Passengers leaving Cumberland in the morning and Washington in the evening lines, reach Baltimore in season to proceed to Philadelphia by the evening train at 8 p. m.—so as to reach New York before noon the next day.

An Emigrant line by burthen cars, leaves Baltimore every morning, except Sundays, at 4 o'clock—connecting with a line of the previous day from N. York—and at Cumberland with a wagon line to Pittsburg or Brownsville and Wheeling. Fare by this line:

From New York to Pittsburg,		$8 00
" Philadelphia	"	6 50
" Baltimore	"	5 00

By order, J. T. ENGLAND, Agent.

SOUTH CAROLINA RAILROAD.—A PASSENGER Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on

the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily - - - - - $26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia - - - 22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic Railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

JOHN KING, Jr., Agent.

IRON BRIDGES, BRIDGE & ROOF BOLTS, etc. STARKS & PRUYN, of Albany, New York. having at great expense establishe. a manufactory with every facility of Machinery for Manufacturing Iron Bridges, Bridge and Roof Bolts, together with all kinds of the larger sizes of Screw Bolts, Iron Railings, Steam Boilers, and every description of Wrought Iron Work, are prepared to furnish to order, on the shortest notice, any of the above branches, of the very best of American Refined Iron, and at the lowest rates.

During the past year, S. & P. have furnished several Iron Bridges for the Erie Canal, Albany Basin, etc. —and a large amount of Railroad Bridge Bolts, all of which have given the most perfect satisfaction.

They are permitted to refer to the following gentlemen:

Charles Cook, Nelson J. Beach, Jacob Hinds,	Canal Commissioners of the State of New York.
Willard Smith, Esq.,	Engineer of the Bridges for the Albany Basin.
Messrs. Stone & Harris, Mr. Wm. Howe,	Railroad Bridge Builders, Springfield, Mass.
Mr. S. Whipple,	Engineer & Bridge Builder, Utica, N. Y.

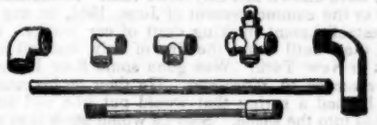
January 1, 1849.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ¼ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by

MORRIS, TASKER & MORRIS.

Warehouse S. E. Corner of Third & Walnut Streets,

PHILADELPHIA.

Fire Brick.

THE Subscribers have constantly on hand Rafford's Stourbridge, Oak Farms Stourbridge, Lister, Wortley, Red and White Welsh Fire Bricks, common and fancy shapes. Also,

ROOFING SLATES,

from the best Welch quarries, and of all sizes. Also

COAL,

of all kinds—Liverpool Orrell and Cannel, Scotch, New Castle, Pictou, Sidney, Cumberland, Virginia, and all kinds of Anthracite coals. Also,

Pig Iron, Salt, etc., etc., for sale at the lowest market price. Apply to

SAMUEL THOMPSON & NEPHEW,
275 Pearl and 43 Gold Sts., New York.

November, 23, 1849.

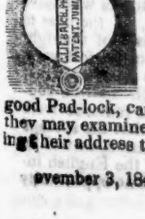
Patent India Rubber Steam Packing.

THIS article, made by the subscriber, who alone is authorised to make it, is warranted to stand as high a degree of heat *as any that has been or can be made by any person*—and is the article which has made the reputation of India Rubber Steam Packing and the demand therefor. A large assortment of all thicknesses requisite for any description of engines, steam pipes, valves, etc., constantly on hand and for sale by the manufacturer and patentee, who will give every information regarding its properties, mode of use, etc. at the warehouse. JOHN GREACHEN, JR.,

98 Broadway, opposite Trinity Church.

New York, October, 1849.

To Railroad Companies, etc.



The undersigned has at last succeeded in constructing and securing by letters patent, a Spring Pad-lock which is secure, and cannot be knocked open with a stick, like other spring locks, and therefore particularly useful for locking Cars, and Swiiches, etc.

Companies that are in want of a good Pad-lock, can have open samples sent them that they may examine and judge for themselves, by sending their address to C. LIEBRICH,

46 South 8th St., Philadelphia.

ovember 3, 1849. 6m*

RAILROAD India-rubber Springs.

IF any Railroad Company or other party desires it, the NEW ENGLAND CAR COMPANY will furnish India-rubber Car Springs made in the form of washers, with metalic plates interposed between the layers, or in any other form in which they can be made; in all cases guaranteeing the right to use the same against any and all other pretended rights or claims whatsoever.

F. M. Ray, 98 Broadway, New York.
E. CRANE, 99 State Street, Boston.
1849.

MACHINE WORKS OF ROGERS KETCHUM & GROSVENOR, *Patterson, N. J.* The undersigned receive orders for the following articles manufactured by them of the most superior description in every particular. Their works being extensive, and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and dispatch.

Railroad Work.—Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles Springs and Flange Tires; Car Wheels of Cast Iron a variety of patterns and chills; Car Wheels of Cast Iron with wrought tires; Axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and millwright work generally, hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Patterson, N.J. or 74 Broadway, New York.

THE NEWCASTLE MANUFACTURING Co continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack Screws, Wrought Iron Work and Brass and Iron Castings, of all kinds connected with Steamboats. Railroads, etc.; Mill Gearing of every description; Cast Wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,
President of the Newcastle Manuf. Co.

DEAN, PACKARD & MILLS,

MANUFACTURERS OF ALL KINDS OF

RAILROAD CARS,

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS

— ALSO —

SNOW PLOUGHS AND ENGINE TENDERS OF VARIOUS KINDS.

CAR WHEELS and AXLES fitted and furnished at short notice; also, STEEL SPRINGS of various kinds; and

SHAFTING FOR FACTORIES.

☞ *The above may be had at order at our Car Factory*

REUEL DEAN,
ELIJAH PACKARD,
ISAAC MILLS,
} SPRINGFIELD, MASS.

1y48

Iron Safes.

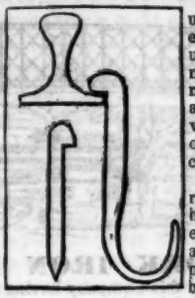
FIRE and Thief-proof Iron Safes, for Merchants, Banks and Jewelers use. The subscriber manufactures and has constantly on hand, a large assortment of Iron Safes, of the most approved construction, which he offers at much lower rates than any other manufacturer. These Safes are made of the strongest materials, in the best manner, and warranted entirely fire proof and free from dampness. Western merchants and the public generally are invited to call and examine them at the store of E. Corning & Co., sole agents, John Townsend, Esq., or at the manufactory.

Each safe furnished with a thief-detector lock, of the best construction.

Other makers' Safes repaired, and new Keys and Locks furnished at the shortest notice.

H. W. COVERT
cor. Steuben and Water sts. Albany
August 24, 1848.

Patent Self-clinching Railroad Spikes.



These spikes have been in use upon various roads for several years, and have met with universal approval by Engineers. They drive in the manner shown, turning themselves, and are therefore not liable to work loose. They will prove of great value to secure the chair.

We are also manufacturin railroad spikes, hook and flat head; wrought chairs, clamps, etc., of superior quality, and are prepared to contract for any pattern or weight upon favorable terms.

SMITH & TYSON,
25 South Charles st., Baltimore Md.

P. H. Griffin,

Corner of Steuben and James Sts. Albany, N.Y.,

CONTINUES to manufacture copper flues for locomotive boilers, brewers' coppers, stills, tanner heaters, etc. Copper work in general, at the shortest notice. He has constantly on hand brass cocks, brass valves, copper pumps of every variety.

Orders promptly attended to. 1y14

Mattewan Machine Works.

THE Mattewan Company have added to their Machine Works an extensive LOCOMOTIVE ENGINE department, and are prepared to execute orders for *Locomotive Engines* of every size and pattern—also *Tenders, Wheels, Axles*, and other railroad machinery, to which they ask the attention of those who wish such articles, before they purchase elsewhere.

STATIONARY ENGINES, BOILERS, ETC.,

Of any required size or pattern, arranged for driving *Cotton, Woollen, or other Mills*, can be had on favorable terms, and at short notice.

COTTON AND WOOLLEN MACHINERY,

Of every description, embodying all the modern improvements, second in quality to none in this or any other country, made to order.

MILL GEARING,

Of every description, may be had at short notice, as this company has probably the most extensive assortment of patterns in this line, in any section of the country, and are constantly adding to them.

TOOLS.

Turning Lathes, Slabbing, Planing, Cutting and *Drilling Machines*, of the most approved patterns, together with all other tools required in machine shops, may be had at the Mattewan Company's Shops, Fishkill Landing, or at 66 Beaver street, New York.

WM. B. LEONARD, *Agent.*

Gloucester Iron Works,

GLOUCESTER, NEW JERSEY,

NEARLY OPPOSITE PHILADELPHIA.

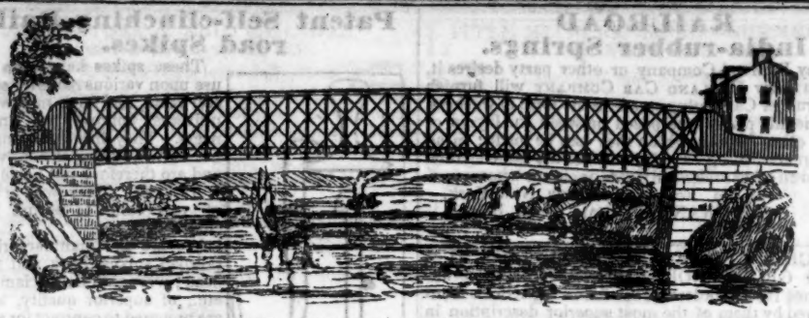
THE subscribers having made extensive alterations in their works, are now prepared to receive orders for all kinds of Stationary and Marine Engines, Boilers, Locomotives, Sugar Mills, and every description of Mill Work.

Also—Orders for Iron and Brass Castings executed with despatch.

Having secured the valuable services of Mr. David Matthew as Superintendent (who has been for five years foreman in the Iron Works of John Watchman, now the Vulcan Works, Baltimore, and for 12 years superintendent of the Mohawk and Hudson and the Utica and Schenectady Railroads, New York,) they feel confident that all orders entrusted to them will be faithfully executed.

Having an extensive Wharf in front of their works, it will afford a safe harbor for all classes of steam vessels that may require repairs during the winter.

C. M. & J. C. SITER.
Gloucester, July 24, 1850. 1m.



NEW YORK IRON BRIDGE COMPANY.

The Bridges manufactured by this Company having been fully tested on different Railroads, by constant use for more than two years, and found to answer the full expectations of their most sanguine friends, are offered to the public with the utmost confidence as to their great utility over any other Bridge now known.

The plan of this Bridge is to use the iron so as to obtain its greatest longitudinal strength, and at the same time it is so arranged as to secure the combined principles of the *Arch, Suspension and Triangle*, all under such controlling power as causes each to act in the most perfect and secure manner, and at the same time impart its greatest strength to the whole work.

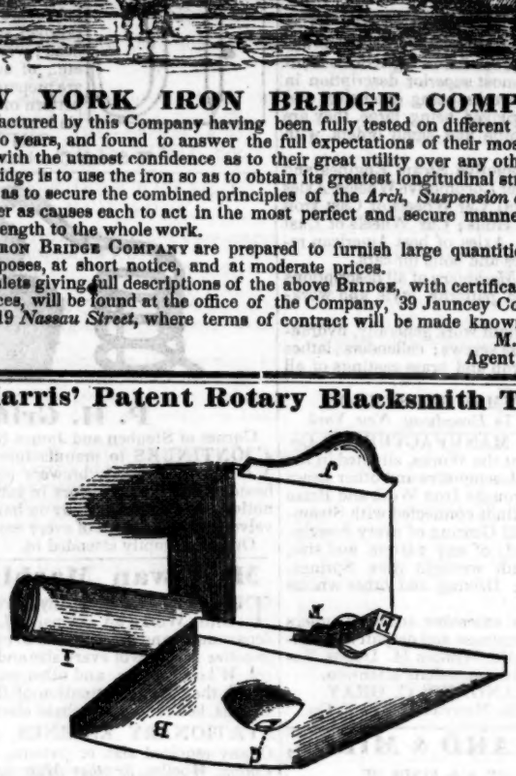
THE NEW YORK IRON BRIDGE COMPANY are prepared to furnish large quantities of Iron Bridging for Railroad or other purposes, at short notice, and at moderate prices.

Models, and pamphlets giving full descriptions of the above BRIDGE, with certificates based on actual trial from undoubted sources, will be found at the office of the Company, 39 Jauncey Court, Wall st., or of W. RIDER & BROTHERS, 19 *Nassau Street*, where terms of contract will be made known, and where orders are solicited.

M. M. WHITE,
Agent for the Company.

August 29, 1849.

E. Harris' Patent Rotary Blacksmith Tuyere.



LETTERS Patent were issued January 9, 1849, to E. HARRIS, of Springfield, for an Improved Rotary Blacksmith Tuyere. Since that time there have been some hundreds put in operation, giving satisfaction and full proof of superiority over all others.

This Tuyere is so arranged that by one movement it can be changed from the largest work to the smallest; at the same time the fire is changed in proportion, thereby making a great saving in coal. Words cannot convey the full merits of this Tuyere; nor is it deemed necessary to speak in disparagement of other Tuyeres, as every smith is capable of judging for himself, and will give merit where merit is due.

I will simply say that there has not been a single instance where I have had my Tuyere put in use but it has given full satisfaction, and is recommended by all who have used them, as being superior to any other ever introduced. I would invite all to give them a trial; and the names of those using them being given, I hope it may induce others to try them; they recommend themselves.

Western Railroad Shop,	Springfield,	Mass.
" "	Pittsfield,	"
Connecticut val.	Springfield	"
" "	N. Hampton	"
Hartford "	Hartford,	Conn.
New Haven "	New Haven	"
Norwich and Worcester,	Norwich	"
N. York and N. Haven,	New Haven	"
Saratoga and Whitehall,	Saratoga,	N. Y.
Vermont Central,		
Hudson and Berkshire,	Hudson,	
L. Kingsley,	Canton,	Mass.
Hadley Falls Co.	Ireland, W. Springfield,	Mass.
Sidney Patch,	Boston,	"
Ames Manuf. Cor.,	Chickopee,	"
American Machine w'ks,	Springfield	"
Dean, Packard & Mills	"	"
G. Frank Bradley,	N. Haven,	Conn.
Andrew Baird,	"	"
Collis & Lawrence	"	"
Slate & Brown,	Windsor Locks,	
Gage,	Nashua,	N. H.
Machine shop,	Manchester,	"
Louis F. Lanney,	Baltimore,	Md.
J. H. Baerdid,	179 Chambers st.	N. Y.
J. Fanning	Rochester,	"
G. W. Hunt	41 Gold st.	"
Chamberlain & Waldo,		"
P. S. Burges, carriage maker,		"
Samuel Miller,		"
J. Leggett,	Steverson falls,	"
J. E. Harris,	Hillsdale,	"
John L. Graham,	Albany,	"
David Dalsell,	South Egremont,	Mass.
Roys & Wilcock,	Berlin,	Conn.

Agents for the sale of Tuyeres:
B. B. Stevens in New York and Connecticut.
A. J. VanAllen has the Agency for the Western and Southern States, and is now travelling through those States. Any communication addressed to the patentee will receive prompt attention.

E. HARRIS, Patentee,
Springfield, Mass.

November 23, 1849.

Railroad Lanterns.

COPPER and Iron Lanterns for Railroad Engines, fitted with heavy silver plated Parabolic Reflectors of the most approved construction, and Solar Argand Lamps; manufactured by

HENRY N. HOOPER & CO.,
No. 24 Commercial St. Boston.

August, 16, 1849. 6m33

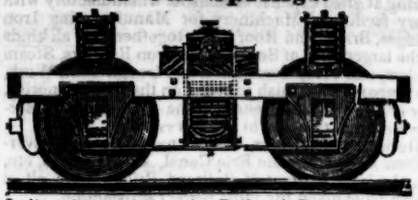
Gas Fixtures.

FIXTURES for Burning Gas for Lighting Public Buildings, Private Dwellings, Stores and Factories, manufactured by the subscriber in great variety. Orders by Mail, or left at the Factory on Causeway street, will be promptly attended to.

HENRY N. HOOPER & CO.

Boston, March 23, 1850. 6m13

F. M. Ray's Patent India-rubber Car Springs.



India-rubber Springs for Railroad Cars were first introduced into use, about two years since, by the inventor. The New England Car Company, now possesses the exclusive right to use, and apply them for this purpose in the United States. It is the only concern that has tested their value by actual experiment, and in all arguments in favor of them, drawn from experience of their use, are in those cases where they have been furnished by this company. It has furnished every spring in use upon the Boston and Worcester road, and, in fact, it has furnished all the springs ever used in this country, with one or two exceptions, where they have been furnished in violation of the rights of this company; and those using them have been legally proceeded against for their use, *as will invariably be done in every case of such violation.*

The Spring formed by alternate layers of India-rubber discs and metal plates, which Mr. Fuller claims to be his invention, was invented by Mr. Ray in 1844.—In proof of which we give the deposition of Osgood Bradley, of the firm of Bradley & Rice, of Worcester, Mass., car manufacturers, and men of the highest respectability. In this deposition, in relation to the right of parties to use these springs, he says:

"I have known Mr. Ray since 1835. In the last of May or the commencement of June, 1844, he was at my establishment, making draft of car trucks. He staid there until about the first of July, and left and went to New York. Was gone some 8 or 10 days, and returned to Worcester. He then on his retnrn said he had a spring that would put iron and steel springs into the shade. Said he would show it to me in a day or two. He showed it to me some two or three days afterwards. It was a block of wood with a hole in it. In the hole he had three pieces of India-rubber, with iron washers between them, such as are used under the nuts of cars. Those were put on to a spindle running through them, which worked in the hole. The model now exhibited is similar to the one shown him by Ray. After the model had been put into a vice, witness said that he might as well make a spring of putty. Ray then said that he meant to use a different kind of rubber, and referred to the use of *Goodyear's Metallic Rubber*, and that a good spring would grow out of it." There are many other depositions to the same effect.

The history of the invention of these springs, together with these depositions, proving the priority of the invention of Mr. Ray, will be furnished to all interested at their office in New York.

This company is not confined to any particular form in the manufacture of their springs. They have applied them in various ways, and they warrant all they sell.

The above cut represents precisely the manner in which the springs were applied to the cars on the Boston and Worcester road, of which Mr. Hale, President of this road speaks, and to which Mr. Knevitt refers in his advertisement. Mr. Hale immediately corrected his mistake in the article quoted by Mr. Knevitt, as will be seen by the following from his paper of June 8, 1848. He says:

INDIA-RUBBER SPRINGS FOR RAILROAD CARS.—"In our paper yesterday, we called attention to what promises to be a very useful invention, consisting of the application of a manufacture of India-rubber to the construction of springs for railroad cars. Our object was to aid in making known to the public, what appeared to us the valuable properties of the invention, as they had been exhibited on trial, on one of the passenger cars of the Boston and Worcester railroad. As to the origin of the invention we had no particular knowledge, but we had been informed that it was the same which had been introduced in England, and which had been subsequently patented in this country; and, we were led to suppose that the manufacturers who have so successfully applied this material, in the case to which we referred had become possessed of the right to use that patent. It will be seen from the following communication, addressed to us by a member of the company, by which the Worcester railroad was supplied with the article upon which our remarks were based, that we were in an error, and that the springs here introduced are an American invention, as well as an American manufacture. How far the English invention may differ from it we have had no opportunity of judging."

To secure a supply of a sufficient quantity of air, a blower is used, which drives a current of air under the grate. The same blower also forces jets of heated air into the top of the fire chamber, which supplies sufficient oxygen for the combustion of all the gases that are evolved, and forces the flame and any moisture that the fuel may contain, *down* through the upright tubes, into the smoke chamber, where are deposited all the cinders and ashes. The great merit of the improvement, in our opinion, exists in creating the draft by the pressure of the air thrown into the fire chamber, which is sufficient for this purpose, (forcing the colder portions of the air through the tubes,) and to consume completely everything combustible, and prevent for the same reason the escape of any sparks or cinders. So perfectly is the heat absorbed by the boiler that the mercury will not rise in a thermometer placed in the top of the chimney, to 140°, when the engine is doing full duty.

It is very difficult to give a description which can be readily understood, without drawings. We have stated sufficient, however, to an understanding of the principle involved. It has been carefully examined and tested by some of the best engineers in this city, who pronounce it superior to anything in use, and certify that it completely accomplished all that is claimed for it. As it entirely consumes its own smoke, and as the draft is supplied by *pressure* the use of chimneys in sea going steamers, may be entirely dispensed with. It is certainly well worth the attention of railroad companies, as it obviates all the objections heretofore existing against the use of coal as a fuel.

Reformation Proposed in our Money or Legal Tender.

By Isaac Buchanan.

The immediate necessity of this arises from the increasing quantity of gold from California—but there is an urgent call for it to prevent all the internal or native interests of the country continuing to be the mere foot ball of the foreign trade. Let it be observed that I draw the distinction between paper *money* and paper *currency* thus: paper made a legal tender (or which you are bound to receive in liquidation of a debt) I call *money*; and paper issued by banks or private individuals, which you may or may not receive, I call *currency*. The use of paper money is as a standard for the currency, and of money a very small amount will do where banking exists in a full and healthy proportion to the wants of the community. In the United States the reformation necessary is, that we construe the clause of the constitution of the United States (which requires the legal tender to be metallic) to mean "*secured by the precious metals or not credit paper.*" We must in fact retain gold as a security, but not as a standard of the currency; or in other words, our five dollar note must mean *five dollars worth of gold*, not a quarter of an ounce or any *certain weight of gold*. The best way to effect this is to let the sub-treasury issue no more precious metals till there is a given sum—say fifty millions—in its vaults, but issue in its stead evidencies of the deposit of these precious metals, which would form a paper or emblematic legal tender that could not depreciate from insecurity, and than this (insecurity), there is no cause of money depreciating, (other things that are called depreciations being only the appreciation of gold or other commodity).

The necessity of such a measure in the view of increasing stocks of gold, is self-evident; but there is much more urgent call for the reformation of our *money* as the only means of disenthralling our home trade and industry from the malign influence of the foreign trade under which these are made (by our money law) to suffer equally, as in England, from our following England in her monetary legislation. Nothing but the vast sums of money brought into this country by emigrants each year, keeps the currency right, and prevents the loss of all confidence in business, or the downfall of all banking credit. When the foreign traders choose to over-import, the loss would only be to themselves by my plan; but at present all classes are made to suffer, and often to be overwhemed by this folly of the importers of goods, a thing beyond their control. Whenever undue imports occur, the precious metals become in demand for export, to balance our trade with foreign countries; but it is found that by our money law, we have violated "the law of supply and demand," as respects gold and silver coin, and away goes our money to vivify the industry of other countries, because they are commodities which are kept down in *price* even when they rise in *value*, in consequence of increased demand as a commodity. The foreigner thus has the advantage of us, as to him gold and silver are commodities, while to the home trade they are only a money.—And even when gold and silver is not taken in any great quantity, this is only prevented by the most cruel reduction of prices to every branch of native industry and American stocks; for under our present insane system high prices cannot exist without necessarily producing distress, or low prices, thus: a foreigner brings this month goods to New York, and sells them say for two eagles or twenty dollars, or otherwise an ounce of gold. This gold he might carry away out of the country, but because he finds American trade in a dull state, and prices very low, he takes away something of American growth, leaving the money to revive American trade; he takes say 200 pounds of cotton, at 10 cents, $20; but three months hence he may come with a similar lot of goods, and for them get two and a half eagles, or twenty-five dollars, because of the revival of the home trade of the country; there is however a general prosperity or rise in price, so the foreigner finds he can get no more cotton, although he got twenty per cent. more gold, he finds that he can only get 200 pounds of cotton, because the price is now 12½ cents; the cotton in a word has risen in price, the gold in quantity! so the foreigner takes the gold, and every interest in the country is ruined, because in removing what to him is only a commodity, he removes what to them is by law, money, the life's blood of the trade. Cotton and every other commodity falls to a level with this profitless untaxed article, gold, to prevent its leaving the country, and increasing the paralisis which its exit has introduced into all stocks, and into every department of American industry, however disconnected with foreign trade.

Under the reformation of the currency here proposed, the prosperity or greatest employment of the people would be attained. The question of employment is the great point in every country, and to subserve this the paper money secured by gold and silver ought to be increased to the extent the gold rises in value (or in other words becomes scarce), in order to fill the vacuum in the circulating medium. Below a certain point, however, the paper money ought not to be permitted to fall, (say fifty millions of dollars) and, to keep specie enough in the vaults of the sub-treasury to meet this am't *at the specie's market price*, there should be a yearly tax on the country to the extent of the gradual depreciation of the gold and silver held. If the State was called on to make good the amount of depreciation on specie to the amount of the whole circulation, it would be a most serious thing, but this is only proposed to be the case to *the amount of the legal tender paper*, which may be required *to form one standard of value all over the Union*, as representing the value of the precious metals at the American (not a fixed or foreign) market value. The $5 bill would state on its face that a quarter of an ounce of gold is held in the sub-treasury, and that this piece of paper therefore representing five dollars worth of gold, is equivalent to a quarter of an ounce of gold when the foreign exchanges are at par, to less weight in gold when the foreign exchanges are against the United States, and to more weight of gold when the foreign exchanges being in our favor gold is in less demand and has a less value. By this means, and this means alone, can the foreign merchant and the money monger be brought to feel themselves in the same boat with American industry, for it will become (under the law now proposed as a monetary reformation) interested in pushing our exports and limiting our imports, (the greatest national economy) as thus alone can the precious metals be brought down in value, and their paper money be made to stand for more gold and commodities.

The Coal Trade for 1850.

The quantity sent this week by railroad is 48,482 04 tons, 751 tons less than last week. There was no interruption in the trade during the week, and the result confirms the opinions we expressed last week, that the company would not transport 50,000 tons in any one week again this season—The cold, frosty mornings interfere considerably with transportation, even when the weather is otherwise favorable. We have no new feature in the trade to notice.

Amount of coal sent over the Philadelphia and Reading railroad for the week ending on Thursday evening last:

	RAILROAD. Week.	RAILROAD. Total.	CANAL. Total.
Pt. Carbon..	17,287 19	425,388 17	129,478 02
Mt. Carbon.	5,985 18	165,049 13	40,381 09
S. Haven...	18,631 02	482,741 07	93,418 13
Pt. Clinton..	6,778 04	156,444 00	24,852 03
	48,482 04	1,230,623 17	288,030 07
		288,030 07	
Total by RR and canal.		1,518,654 04	
To same time last year—Railroad....		1,047,916 15	
" " " Canal.....		437,682 09	
		1,485,599 04	

Increase this year, so far, tons, 83,055 00.

[*Pottsville Jour.*

Ohio.

Central Railroad.—There is now a corps of engineers employed on the Ohio Central road between Zanesville and Bridgeport, making definite locations, and they have progressed as far as Morristown eastward. We are informed by the best authority, that they make the distance eleven miles less than under the estimates of Mr. Knight. His estimates, from reconnoisance, were 95 miles distance. The present survey makes it not exceed 84 miles. The route, we learn, is well adapted to the construction of a road. The grade on much of it is nothing, and on very little over 40 feet. The estimates, from the route thus far surveyed, are that the road can be graded, bridged and prepared for 10,000 dollars per mile, or $480,000 dollars for the whole route. Iron can now be contracted for at 44 dollars per ton, or $390,280 for the whole route.—We have then a cost of the whole route of $1,230,280.

New York.

Sackets Harbor and Saratoga Railroad.—The subject of constructing a railroad from Sackets Harbor to Saratoga is attracting a good deal of attention along the line of the proposed road.—The distance is about 140 miles. The route has been surveyed, and stated to be very favorable. It is also stated that a large amount of means can be had for the work.

This road *may* be built, but we cannot ourselves see any reason to believe it will be, neither do we see any necessity for it. It will not materily shorten the distance between Sackets Harbor and Albany, which are soon to be connected by means of Rome and Watertown railroad. The country to be traversed by the proposed railroad is for a large part of the way a forest, and we can see no reason for an additional road to one already existing, and occupying a much more favorable line. If the people interested in this project are desirous of building a railroad let them take up some line that is really needed, and bids fair to pay.

The Utica and Schenectady Railroad Company have declared a dividend of 26 per cent from their reserved fund, and also at the same time voted a service of plate to the President of the road, Mr. Corning, for his long and valuable services, for which he has always declined to receive any compensation. This is a well-deserved compliment to one of the most energetic and accomplished railroad officers in the country.

Pennsylvania.

Columbia Railroad.—On Saturday last the Canal Commissioners effected a sale of that portion of the Columbia railroad extending from Broad stree near Callowhill to the foot of Inclined Plane, including the substantial stone bridge over the Schuylkill at Peters' Island, for $243,200. The Reading railroad company was the purchaser, thro' their President, John Tucker, Esq. The payments are to be made as follows—$25,000 cash at time of sale, $50,000 on the first day of April, 1851; and $10,000 monthly thereafter until the whole sum is paid. We are gratified to learn that this sum is to be appropriated to the straightening and improving the remaining portion of the road.

Schuylkill Navigation.—On Monday last the Schuylkill Canal was opened from Phœnixvil'e to Reading, which again places the canal in complete navigable order between this city and Reading.—This will afford to the business men along the line the advantages resulting from the lumber and grain trade of the Union Canal, which has for some weeks been in navigable order throughout its length.—*Phila. Shipping List.*

Ohio.

Steubenville and Indiana Railroad.—The Wheeling Gazette says that the subscription to the stock now amounts to six hundred thousand dollars, and an agent leaves Steubenville this week for Philadelphia, to increase that stock. He will then go to Cincinnati, Columbus, &c.

Virginia.

South Side Railroad.—We learn from the last Farmville Republican, that quite a spirited meeting of the friends of the South Side railroad, was held in that town on the day and night of the 8th inst. The Rev. Dr. Rice was chosen Chairman, and after opening the proceeding in an appropriate address, he was followed by W. C. Flournoy and J. B. Anderson, when a sumptuous repast prepared for the occassion was partaken of. After night, Col. W. W. Forbes and others were called out in public speeches, which did full justice to the important work they have undertaken. More than twenty thousand dollars was subscribed to the stock of the company.

ENGINEERS.

Atkinson, T. C.,
Alexandria and Orange Railroad, Alexandria, Va.

Bancks, C. W.,
Civil Engineer, Vicksburg, Miss.

Buckland, George,
Troy and Greenbush Railroad.

Clement, Wm. H.,
Little Miami Railroad, Cincinnati, Ohio.

Cozzens, W, H,,
Engineer and Surveyor, St. Louis, Mo.

Alfred W. Craven,
Chief Engineer Croton Aqueduct, New York.

Davidson, M. O.,
Eckhart Mines, Alleghany Co., Maryland.

Fisk, Charles B.,
Cumberland and Ohio Canal, Washington, D. C.

Felton, S. M.,
Fitchburgh Railroad, Boston, Mass.

Floyd-Jones, Charles,
South Oyster Bay, L. I.

Gzowski, Mr.,
St. Lawrence & Atlantic Railroad, Montreal, Canada.

Gilbert, Wm. B.,
Rutland and Burlington Railroad, Rutland, Vt.

Grant, James H.,
Nashville and Chattanooga R. R., Nashville, Tenn.

S. W. Hill,
Mining Engineer and Surveyor, Eagle River, Lake Superior.

Holcomb, F. P.
Southwestern Railroad, Macon, Ga.

Johnson, Edwin F.
New York and Boston Railroad, Middletown Ct.

Latrobe, B. H.,
Baltimore and Ohio Railroad, Baltimore, Md.

Miller, J. F.,
Worcester and Nashua Railroad, Worcester, Mass.

Morris, Elwood,
Schuylkill Navigation, Schuylkill Haven, Pa.

Morton, A. C.,
Atlantic and St. Lawrence Railroad, Portland, Me.

McRae, John,
South Carolina Railroad, Charleston, S. C.

Nott, Samuel,
Lawrence and Manchester Railroad, Boston,

Prichard, M. B.,
East Tennessee and Georgia R. R., Cleveland, Tenn.

Roebling, John A.,
Trenton, N. J.

W. Milnor Roberts,
Bellefontaine and Indiana Railroad, Marion, Ohio.

Roberts, Solomon W.,
Ohio and Pennsylvania Railroad, Pittsburgh, Pa.

Sanford, C. O.,
South Side Railroad, Virginia.

Schlatter, Charles L.,
Northern Railroad (Ogdensburg), Malone, N. Y.

Sours, Peter,
Rahway, New Jersey.

Stark, George.,
Bost., Con. and Mont. R. R., Meredith Bridge, N. H.

Steele, J. Dutton,
Pottstown, Pa.

Trautwine, John C.,
Panama Railroad—Address through office of Panama Railroad Co., 73 Broadway, N. Y.

Trimble, Isaac R.,
Philad., Wil. & Baltimore Railroad, Wilmington, Del.

Tinkham, A. W.,
United States Fort, Bucksport, Me.

Thomson, J. Edgar.,
Pennsylvania (Central) Railroad, Philadelphia.

Troost, Lewis,
Alabama and Tennessee Railroad, Selma, Ala.

Whipple, S.,
Civil Engineer and Bridge Builder, Utica, N. Y.

Williams, E. P.,
Auburn and Schenectady Railroad, Auburn, N. Y.

Williams, Charles H.,
Milwaukie, Wisconsin.

HOTELS.

Exchange Hotel,
Adjoining Eastern Railroad Depot,
BUFFALO, N. Y.
BY.....FISK & SPERRY,
Late of Delevan House, Albany.

J. D. Abraham, *Architect,*
NO. 300 MAIN STREET,
BFFFALO, N. Y.

Fountain Hotel,
LIGHT STREET, BALTIMORE,
P. THURSTON.....Proprietor.

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On the European Plan,
NO. 135 FULTON STREET,
Between Broadway and Nassau St.,
NEW YORK.

MANSION,
Corner of Maine and Exchange Streets,
P. DORSHIMER. BUFFALO.

GUY'S
United States Hotel,
(Opposite Pratt street Railroad Depot,)
BALTIMORE.
JOHN GUY. WILLIAM GUY.

American Hotel,
Pratt street, opposite the Railroad Depot,
BALTIMORE.
HENRY M. SMITH.....Proprietor.
Late of the Exchange & St. Charles Hotels, Pittsburg.

Washington Hotel,
BY JOHN GILMAN,
$1 Per Day.
No. 206 Pratt street, (near the Depot,)
BALTIMORE.

Barnum's City Hotel,
MONUMENT SQUARE, BALTIMORE.
This Extensive Establishment, erected expressly for a Hotel, with every regard to comfort and convenience, is situated in the centre and most fashionable part of the city, and but a few minutes' walk from the Railroad Depots and Steamboat Landings.
The House has lately undergone a thorough repair, embracing many valuable improvements, and will accommodate 250 Guests. BARNUM & CO.

JONES' HOTEL,
NO. 152 CHESTNUT STREET,
PHILADELPHIA.
Barnes & Ware, ... Proprietors.

BUSINESS CARDS.

Lithography.
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161 Main st., Buffalo, (Commercial Advertiser Build.)
Are prepared to execute all kinds of Lithography in good stole and at reasonable rates. Particular attention wil be paid to Engraving Railroad Maps, Engineer's Plans and drafts, etc., and orders in this line are respectfully solicited.

J. T. Hodge
Will attend to the examination of mining tracts near Lake Superior, and prepare Reports and Maps.
Address, during the Summer,
Ontanagon Postoffice, Lake Superior.

Cumberland Steam Coal,
FROM THE
FROSTBURG MINES, MD.
H. A. TUCKER,
Agent of Frostburg Coal Co.
No. 50 Wall Street, New York.

Eaton, Gilbert & Co.,
Railroad Car, Coach and Omnibus Builders,
TROY, N. Y.

Charles T. Jackson, M. D.,
STATE ASSAYER, late Geologist to Maine, Rhode Island, New Hampshire, and the United States, offers his services to his friends and the public in making any Chemical, Mineralogical or Geological researches that may be required for the improvement of Agriculture and the Manufacturing Arts. Particular attention will be paid to the exploration of mines and to assaying of ores of the metals.
State Assayer's office, 31 Somerset st.
Boston Sept. 3, 1850.

STEEL AND FILES.
R. S. Stenton,
20 CLIFF STREET, NEW YORK,
AGENT FOR
J. & RILEY CARR,
BAILEY-LANE WORKS, SHEFFIELD,
Manufacturers of Cast, Shear, German, Blister, and
Spring Steel,
Of all descriptions, *Warranted* Good.
FILES.
Manufacturers of Machinists' Warranted Best Cast Steel *Files*, expressly for working upon Iron and Steel, made very heavy for recutting.
☞ A full Stock of *Steel* and *Files* at all times on hand. 6m4

Walter R, Johnson,
CIVIL AND MINING ENGINEER AND ATTORNEY for Patents. Office and Laboratory, F St., opposite the Patent office, Washington, D. C.

Dudley B. Fuller & Co.,
IRON COMMISSION MERCHANTS,
No. 139 GREENWICH STREET,
NEW YORK.

Manning & Lee,
GENERAL COMMISSION MERCHANTS,
NO. 51 EXCHANGE PLACE,
BALTIMORE.
Agents for Avalon Railroad Iron and Nail Works. Maryland Mining Company's Cumberland Coal 'CED —'Potomac' and other good brands of Pig Iron.

Samuel Kimber & Co.,
COMMISSION MERCHANTS
WILLOW ST. WHARVES, PHILADELPHIA.
AGENTS for the sale of Charcoal and Anthracite Pig Iron, Hammered Railroad Car and Locomotive Axles, Force Pumps of the most approved construction for Railroad Water Stations and Hydraulic Rams, etc., etc.
July, 27, 1849.

James Herron, *Civil Engineer,*
OF THE UNITED STATES NAVY YARD,
PENSACOLA, FLORIDA.,
PATENTEE OF THE
HERRON RAILWAY TRACK.
Models of this Track, on the most improved plan, may be seen at the Engineer's office of the New York and Erie Railroad.

PLUSHES
FOR
Railway Cars & Omnibuses.
F. S. & S. A. MARTINE,
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ARE now receiving a large and complete assortment of Plain and Figured PLUSHES, of their own importation, which will be sold at the lowest market price, viz: Crimson, Maroon, Scarlet, Green, Blue, Purple, etc.

ALSO—CURLED HAIR, the best manufactured in market.

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Railroad iron,
Locomotive Engines,
Passenger and Freight Cars,
Car Wheels and Axles,
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Orders are invited; and all inquiries in relation to any of the above articles will receive immediate attention

Manufacture of Patent Wire ROPE AND CABLES,
For Inclined Planes, Suspension Bridges, Standing Rigging, Mines, Cranes, Derrick, Tillers, &c., by
JOHN A. ROEBLING, Civil Engineer,
TRENTON, N. J.

FORGING.
Ranstead, Dearborn & Co.,
MANUFACTURERS OF
LOCOMOTIVE CRANKS AND CAR AXLES,
ALSO
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And All Kinds of Hammered Shapes.
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Henry I. Ibbotson,
IMPORTER of Sheffield and Birmingham Goods. Also, Agent for the Manufacture of Telegraph Wire. 218 PEARL ST., NEW YORK.

Cumberland, (Md.,) Coals for Steaming, etc.
ORDERS RECEIVED FOR AND FILLED by J. COWLES, 27 Wall St., N. Y.

Samuel D. Willmott,
MERCHANT, AND MANUFACTURER OF
CAST STEEL WARRANTED SAWS,
—AND FILES—
IMPORTER OF THE
GENUINE WICKESRLY GRINDSTONES
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NEW YORK.

Railroad Instruments.
THEODOLITES, TRANSIT COMPASSES, and Levels, with Fraunhoffers Munich Glasses, Surveyor's Compasses, Chains, Drawing Instruments, Barometers, etc., all of the best quality and workmanship, for sale at unusually low prices, by
E. & G. W. BLUNT,
No. 179 Water St., cor. Burling Slip.
New York, May 19, 1849.

IRON.

Stickney & Beatty,
DEALERS IN IRON AND IRON MANUFACTURERS.

AGENTS for the Balt. City Rolling Mill, from which establishment they are prepared to furnish Ellicott's round, square, and flat bar iron, puddled and charcoal boiler plates and billet iron—also agents for the sale of the Laurel, Gunpowder and Locust Grove (Balt.) forge pig irons. Locust Grove and Laurel Irons for car wheels, Caledonian boiler blooms made from cold blast iron, Old Colony and Anti-Eatam nails, Wm. Jessop & Son's steel, Coleman's blister steel and nail rods, sheet, hoop, band, oval and common English iron.

Nos. 18 and 20 South Charles st., Baltimore.

Car Wheel Iron.
100 Tons "Columbia" No. 2 Cold Blast Charcoal Iron.
300 Tons "Salisbury" No. 1, do. do.
For sale by CHARLES T. GILBERT,
No. 80 Broad st.
New York, Sept. 21, 1850.

Railroad Spikes.
THE subscribers are prepared to make and execute contracts for Railroad Spikes of a superior quality, manufactured by the New Jersey Iron Company, at Boonton. DUDLEY B. FULLER & CO.
139 Greenwich st. corner of Cedar.

Railroad Iron.
1650 Tons, weighing about 61 lbs. per yard, 40 tons, weighing about 52 lbs. per yard, and 825 tons, weighing about 53½ lbs. per yard, of the latest and most approved patterns of T rail, for sale by
BOORMAN, JOHNSTON & CO.,
119 Greenwich street.
New York, Aug. 26, 1850.

N.B.—B., J. & Co are also prepared to take contracts for English rails, delivered in any of the Atlantic ports of the United States.

Railroad Iron.
THE Undersigned, Agents for Manufacturers, are prepared to contract to deliver Rails of superior quality, and of any size or pattern, to any ports of discharge in the United States.
COLLINS, VOSE & CO.,
74 South St.
New York, June 1, 1850.

Railroad Iron.
1,500 Tons weighing 58 lbs. per lineal yard.
500 " " 57 " "
500 " " 56 " "
500 " " 60 & 61 lbs, "
Also 2½x½ flat rails. All the above being of approved patterns. For sale by
DAVIS, BROOKS, & CO.,
68 Broad street.

N.B.—Rails imported on commission, or at a fixed price.

Iron.
Pig Iron, Anthracite and Charcoal; Boiler and Flue Iron, Spring and Blistered Steel, Nail Rods, Best Refined Bar Iron, Railroad Iron, Car Axles, Nails, Stove Castings, Cast Iron Pipes of all sizes, Railway Chairs of approved patterns for sale by
COLEMAN, KELTON & CAMBELL,
109 N. Water St., Philadelphia.

Railroad Iron.
THE UNDERSIGNED, HAVING made arrangements abroad, are prepared to contract for the delivery of Foreign rails, of approved brands upon the most favorable terms.

They will also make contracts for American rails, made at their Trenton works, from Andover Iron, in whole or in part, as may be agreed upon.

They are prepared to furnish Telegraph, Spring and Market Wire; Braziers and Wire Rods; Rivets and Merchant Bars to order, all made exclusively from Andover Iron. The attention of parties who require iron of the *very best* quality for special purposes, is respectfully invited. COOPER & HEWITT,
17 Burling Slip, New York.
February 15, 1850.

Railroad Iron.
THE Undersigned, Agents for Manufacturers, are prepared to contract for the delivery of English, Welsh and Scotch Rails, of any pattern and weight, also for every description of English, Welsh, Scotch, and Swedish Iron, Railway Chairs and Spikes, Rivets, Bolts, Nuts, Washers, Chain Cables, Anchors, Tin Plates, German Spelter, Iron Castings, and every description of Machinery.
WILLIAM BIRD & CO.,
Iron and Tin Plate Merchants,
44 Wall st., New York.
And at 5 Martin's Lane, City, London,
and 140 Buchanan st., Glasgow.
July 27th, 1850.

Railroad Iron.
THE Undersigned are prepared to contract for the delivery of superior make Welsh Railroad Iron of the favorite brand "Aberdare."
JOSEPH BRAMWELL & CO.,
40 91 Wall street.

Glendon Refined Iron.
Round Iron, Band Iron, Hoop Iron,
Square " Flat " Scroll "
Axles, Locomotive Tyres,
Manufactured at the Glendon Mills, East Boston, for sale by GEORGE GARDNER & CO.,
5 Liberty Square, Boston, Mass.
Sept. 15, 1849. 3m37

PATENT HAMMERED RAILROAD, SHIP & BOAT SPIKES.—The Albany Iron Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes from 2 to 12 inches in length, and of any form of head From the excellence of the material always used in their manufacture, and their very general use for rail roads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works will be promptly executed.
JOHN F. WINSLOW, *Agent.*
Albany Iron and Nail Works, Troy, N. Y.
The above Spikes may be had at factory prices, of Erastus Corning & Co Albany; Merritt & Co., New York; E. Pratt & Brother, Baltimore Md

LAP—WELDED
WROUGHT IRON TUBES
FOR
TUBULAR BOILERS,
FROM ONE AND A QUARTER TO SEVEN INCHES IN DIAMETER.

THE ONLY Tubes of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.
THOMAS PROSSER & SON, Patentees,
28 Platt street, New York.

Railroad Iron.
THE UNDERSIGNED ARE PREPARED TO contract for the delivery of English Railroad Iron of favorite brands, during the Spring. They also receive orders for the importation of Pig, Bar, Sheet, etc. Iron. THOMAS B. SANDS & CO.,
73 New street,
February 3, 1849. New York.

Iron Store.
THE Subscribers, having the selling agency of the following named Rolling Mills, viz: Norristown, Rough and Ready, Kensington, Triadelphia, Pottsgrove and Thorndale, can supply Railroad Companies, Merchants and others, at the wholesale mill prices for bars of all sizes, sheets cut to order as large as 58 in. diameter; Railroad Iron, domestic and foreign; Locomotive tire welded to given size; Chairs and Spikes; Iron for shafting, locomotive and general machinery purposes; Cast, Shear, Blister and Spring Steel; Boiler rivets; Copper; Pig iron, etc., etc.
MORRIS, JONES & CO.,
Iron Merchants,
Schuylkill 7th and Market Sts., Philadelphia.
August 16, 1849. 1y33

Railroad Iron.
THE MOUNT SAVAGE IRON WORKS, Alleghany county, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron. Communications addressed to either of the subscribers will have prompt attention. J. F. WINSLOW, *President*
Troy, N.Y.
ERASTUS CORNING, Albany
WARREN DELANO, Jr., N.Y
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore, Md
November 6, 1848.

Railroad Iron.
THE SUBSCRIBERS ARE PREPARED TO take orders for Railroad Iron to be made at their Phœnix Iron Works, situated on the Schuylkill River, near this city, and at their Safe Harbor Iron Works, situated in Lancaster County, on the Susquehannah river; which two establishments are now turning out upwards of 1800 tons of finished rails per month.

Companies desirous of contracting will be promptly supplied with rails of any required pattern, and of the very best quality.

REEVES, BUCK & CO.
45 North Water St. Philadelphia,
March 15, 1849.

Tredegar Iron Works.

ROLLING MILL FOUNDRY AND MACHINE SHOPS. The undersigned continues to manufacture at his Works in this city (from best charcoal metal) Bar Iron of every description, embracing—Rounds and Squares, from ¼ to 5 inches diameter. Flats, from ¼ to 7 inches, all thicknesses. Bands and Scrolls, all sizes. Boiler plate and Plough Iron. Railroad and Locomotive Axles and Tires. Locomotive Frames, Spikes and Plates. Hoops, Ovals, Half Ovals, Half Rounds, Angle, T, L, and indeed every description of Iron usually manufactured, all of which he warrants to be equal to any made in this country. He also manufactures at his Foundry and Machine Shops all descriptions of Railroad Work, say, Locomotives, Railroad Wheels and Axles complete and ready for the road, Railroad Chairs, etc. Also, Marine and Stationary Engines all sizes, Sugar mills and Engines, Horse mills, and every kind of Machinery usually required for the operations of the country. He has paid particular attention to getting up machinery, etc., for Gold Mine operations, and those in want of such work might find it to their advantage to give him a call. J. R. ANDERSON.

Richmond, Va., Sept. 10, 1850.

CUT NAILS OF BEST QUALITY, BAR IRON (including Flat Rails) manufactured and for sale by FISHER, MORGAN & CO.,
75 N. Water St., Philadelphia.

Wheel, Forge and Foundry Iron.

LOCUST GROVE Wheel Iron of great strength and superior chilling property.

Balt. Charcoal Forge Iron, from Patuxent, Curtis Creek and Gunpowder furnaces.

Elkridge Foundry Iron, of superior strength and softness. Anthracite and Charcoal Iron from Pennsylvania and Virginia. Gas and Water Pipes, Lamp Posts from Elkridge furnace.

LEMMON & GLENN,
6m9 42 Buchanan's Wharf, Baltimore.

S. S. Keyser & Co., IRON WAREHOUSE,

Corner of South and Pratt Streets,
BALTIMORE, MD.

Selling Agents for the Rough and Ready Bar Iron and Elk Boiler and Flue Iron Rolling Mills, Sarah and Taylor Furnaces, and Wrightsville Hollow Ware Foundry, and Dealers in Bar and Sheet Iron, and Cast, Sheer, German, Blister, Spring and Electerised Steel, etc., etc.

Smith & Tyson,

GENERAL COMMISSION MERCHANTS,
No. 25 South Charles St., Baltimore, Md.

AGENTS for the Celebrated Columbia Pig Iron, suitable for Car Wheels and Chilled Rolls.

Columbia refined Charcoal Blooms; Refined Charcoal Juniatta Billet Iron for Wire; Refined Iron for Bridging, of great strength; Cut Nails, Spikes, and Brads; Railroad Spikes and Wrought Chairs. 22tf

Railroad Iron.

CONTRACTS made by the subscribers, agents for the manufacturers, for the delivery of Railway Iron, at any port in the United States, at fixed prices, and of quality tried and approved for many years, on the oldest railways in this country.

RAYMOND & FULLERTON, 45 Cliff st.

JOHNSON, CAMMELL & Co's Celebrated Cast Steel,

AND

ENGINEERING AND MACHINE FILES,

which for quality and adaptation to mechanical uses, have been proved superior to any in the United States. Every description of square, octagon, flat and round cast steel, sheet, shovel and railway spring steel, best double and single shear steel, German steel, flat and square, goat stamps, etc. Saw and file steel, and steel to order for any purposes, manufactured at their Cyclops Steel Works Sheffield.

JOHNSON, CAMMELL & CO.,
100 William St., New York.

November 23 1849.

Bowling Tire Bars.

40	Best Flange Bars	5½x2	inches,	11 feet long.
40	"	5½x2	"	7 feet 8 in. long.
40	" Flat "	6x2	"	11 feet long.
40	"	6x2	"	7 feet 8 in. long.

Now in store and for sale by
RAYMOND & FULLERTON,
45 Cliff street.

IRONDALE PIG METAL, MANUFACTURED and for sale by the Bloomsburg Railroad Iron Co.
LINDLEY FISHER, Treasurer.
75 N. Water St., Philadelphia.

Railroad Iron.

2000 Tons, weighing 58 pounds per lineal yard, of the most approved pattern of T rails, in store and to arrive, for sale by
COLLINS, VOSE & CO.,
74 South St.

New York, June 1, 1850.

Railroad Iron.

3,000 TONS C. L. MAKE 63½ lbs. per yard, now landing and to arrive.

Also contracts made for future delivery of above superior make English Iron.

300 Tons Banks Best Iron, Round, Square and Flat.
200 " English Bar " " " "
10 " 9-16 Square Iron for Railroad Spikes.

For sale in lots to suit purchasers by
DAVID W. WETMORE.

New York, March 26, 1850. 3m

WILLIAM JESSOP & SONS' CELEBRATED CAST-STEEL.

The subscribers have on hand, and are constantly receiving from their manufactory,
PARK WORKS, SHEFFIELD,

Double Refined Cast Steel—square, flat and octagon.
Best warranted Cast Steel—square, flat and octagon.
Best double and single Shear Steel—warranted.
Machinery Steel—round.
Best and 2d qy. Sheet Steel—for saws and other purposes.
German Steel—flat and square, "W. I. & S." "Eagle" and "Goat" stamps.
Genuine "Sykes," L Blister Steel.
Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most favorable terms by WM. JESSOP & SONS,
91 John street, New York.

Also by their Agents—
Curtus & Hand, 47 Commerce street, Philadelphia.
Alex'r Fullerton & Co., 119 Milk street, Boston.
Stickney & Beatty, South Charles street, Baltimore.
May 6, 1848.

Railroad Iron.

B. O. Railway Tires, Railway Wheels,
Scotch Pig Iron, Tin Plates and Banca Tin,
Muntzs Patent Metal Sheathing,
Baltimore Copper.

Contracts for Rails made on behalf of the manufacturers, for delivery at any ports in the United States, at fixed prices.

Bowling Tires and Tire Bars and Scotch Pigs imported to order.

Muntz's Ship-sheathing, and a general stock of Tin Plates and Banca Tin in store, and for sale by
RAYMOND & FULLERTON, 45 Cliff st.

Bowling Iron. Stamped B.O.

Railway Tire Bars	Rivet Iron
Locomotive and other Axles	Locomotive Frame do
Boiler Plates	Bars,

and every other description of this superior Iron.

The subscribers, agents for the sale of Bowling Iron, are prepared to execute orders for importation, especially for railway and machinery uses, with despatch from the manufacturers.

RAYMOND & FULLERTON, 45 Cliff st.

Lovegrove's Patent Cast Iron Water and Gas Pipes.

THE Subscriber, the Inventor and Patentee of the Centrifugal mode of giving form to metallic substances while in a molten state, is preparing to make Cast Iron Water and Gas Pipes, of any dimensions, at prices much lower than they can be made in the old manner, and the pipes warranted to stand a pressure of three hundred pounds to the square inch, and to be soft enough to drill. Steam Engines and all kinds of machinery. Cast Iron Doors and Frames, and Mill Castings of every description, made to order.

THOMAS J. LOVEGROVE,
Machinist and Founder,
West Falls Avenue, below Pratt st., Baltimore.

Railroad Iron.

SPIKES

Wrought Iron CHAIRS, New Pattern.

THE Undersigned continues to contract, as usual, for the above articles. The reputation already acquired for their excellent quality is a guarantee that strict attention shall continue to be paid to the wants and interests of purchasers.

CHARLES ILLIUS,
20 Beaver St., New York.

Ray's Patent India Rubber Car Springs.

Savannah, Ga., May 22, 1850.

FOWLER M. RAY, Esq.,

Dear Sir: I have no hesitation in saying, after having used on our road your springs and Fuller's, that I consider yours decidedly the best in every particular, and in this opinion I am sustained by all our officers. Fuller's spring has a tendency to split, and also to chafe or abrade by the constant friction on the cast iron plates or disc: and in my opinion is not near so elastic as yours.

Your springs, which have been in use on our road for 12 or 15 months past, and in constant use under both passenger and freight cars, are to all appearances as elastic, sound and good, as when first put in use.

We are now building eigty-five new cars, of which for fifty-sets the springs have been ordered of you.

GEORGE A. ADAMS,
Master Carpenter,
Central Railroad and Banking Co. of Georgia.

Connecticut River Railroad Office,
Northampton, May 4, 1850.

E. CRANE, Esq.,

Dear Sir: It is now about two years since I first tried the experiment of using a set of Ray's India-rubber Springs upon one of our merchandise cars, and although the car has been in constant service since that time, I do not on examination find the slightest difference either in the thickness or elasticity of the material.

The same result has followed wherever we have applied them, either for wheel or draw springs on Engines, Tenders or Cars. At present we use no other; either in replacing old springs or building new cars—and I am perfectly satisfied that for economy durability, safety, and ease of motion, that Ray's India-rubber is the best article for Springs which has been presented to the public.

Yours respectfully, J. HUNT,
Supt. Connecticut River Railroad.

EDWARD CRANE, Esq.,

Dear Sir: Having applied to cars of the Boston and Worcester Railroad Corporation, Ray's Vulcanised Rubber Springs (where they have been in use for some two years last past), I have had occasion to observe their operation, and am free to say in answer to your inquiries, that they retain their *elasticity* perfectly during all changes of atmospheric temperature: and are in my opinion a most valuable acquisition to Railroad Cars—are not liable to derangement, as is the case with steel springs; while at the same time it costs less to apply them. Respectfully yours,

D. N. PICKERING,
Supt. Motive Power, Bost. & Wor. Railroad.
Boston, April 15th, 1850.

EMERSON'S

PATENT

CORRESPONDING VENTILATORS,

For Ships, Steamers, etc.,

Manufactured by

CHILSON, ALLEN, WALKER & CO.,
351 Broadway, New York

TO RAILROAD COMPANIES, CAR MANUFACTURERS, etc.

THE Undersigned hereby gives public notice, that the Commissioner of Patents, pursuant to his decision in relation thereto, on the 8th day of October, 1850, issued to him a Patent for the sole right to manufacture, and exclusive use of the INDIA RUBBER CAR SPRING, on account of priority of invention of said Spring. F. M. RAY.

New York, Oct. 23, 1850.

RAILROAD CAR MANUFACTORY

TRACY & FALES,
GROVE WORKS, HARTFORD, CONN.
Passage, Freight and all descriptions of

RAILROAD CARS,

AS WELL AS

LOCOMOTIVE TENDERS,

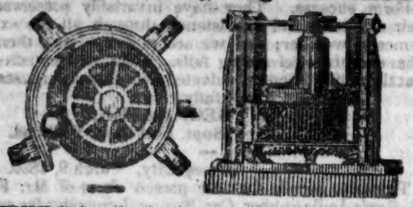
Made to order promptly.

The above is the Largest Car Factory in the Union. In quality of Material, and in Workmanship, Beauty and Good Taste, as well as Strength and Durability, we are determined our work shall be unsurpassed.

JOHN R. TRACY. THOS. J. FALES.

MACHINERY.

Henry Burden's Patent Revolving Shingling Machine.



THE Subscriber having recently purchased the right of this machine for the United States, now offers to make transfers of the right to run said machine, or sell to those who may be desirous to purchase the right for one or more of the States.

This machine is now in successful operation in ten or twelve iron works in and about the vicinity of Pittsburgh, also at Phœnixville and Reading, Pa., Covington Iron Works, Md., Troy Rolling Mills, and Troy Iron and Nail Factory, Troy, N. Y., where it has give universal satisfaction.

Its advantages over the ordinary Forge Hammer are numerous: considerable saving in first cost; saving in power; the entire saving of shingler's, or hammerman's wages, as no attendance whatever is necessary, it being entirely self-acting; saving in time from the quantity of work done, as one machine is capable of working the iron from sixty puddling furnaces; saving of waste, as nothing but the scoria is thrown off, and that most effectually; saving of staffs, as none are used or required. The time required to furnish a bloom being only about six seconds, the scoria has no time to set, consequently is got rid of much easier than when allowed to congeal as under the hammer. The iron being discharged from the machine so hot, rolls better and is much easier on the rollers and machinery. The bars roll sounder, and are much better finished. The subscriber feels confident that persons who will examine for themselves the machinery in operation, will find it possesses more advantages than have been enumerated. For further particulars address the subscriber at Troy, N. Y. P. A. BURDEN.

Railroad Spikes and Wrought Iron Fastenings.

THE TROY IRON AND NAIL FACTORY, exclusive owner of all Henry Burden's Patented Machinery *for making Spikes*, have facilities for manufacturing large quantities upon short notice, and of a quality unsurpassed.

Wrought Iron Chairs, Clamps, Keys and Bolts for Railroad fastenings, also made to order. A full assortment of Ship and Boat Spikes always on hand.

All orders addressed to the Agent at the Factory will receive immediate attention.

P. A. BURDEN, *Agent*,
Troy Iron and Nail Factory, Troy, N. Y.

CHILLED RAILROAD WHEELS.—THE UNdersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of spokes or discs, by a new process which prevents all strain on the metal, such as is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,
Willow St., below 13th,
Philadelphia, Pa.

Brown's Old Established SCALE WARE HOUSE,

NO. 234 WATER ST., NEW YORK.

THE Subscriber, Practical Manufacturer of Scales of every description, respectfully asks the attention of Railroad Companies to his Improved Wrought Iron Railroad Track and Depot Scales which for strength, durability, accuracy, convenience in weighing, and beauty of workmanship, are not surpassed by any others in this country.

He is aware that this is rather a bold assertion for him to make, yet he can say with confidence that they have but to be tried to give them precedence over all others. J. L. BROWN.

☞ Bank Scales made to order, and all Scales of his make Warranted in every particular.

Referen.es given if required

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,

THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size.

Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Wrought Iron Tyres made of any required size—the exact diameter of the Wheel Centre, being given, the Tires are made to fit on same without the necessity of turning out inside.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS, BROTHERS

PATENT MACHINE MADE HORSE-SHOES.

The Troy Iron and Nail Factory have always on hand a general asssortment of Horse Shoes, made from Refined American Iron.

Four sizes being made, it will be well for those ordering to remember that the size of the shoe increases as the numbers—No. 1 being the smallest.

P. A. BURDEN, *Agent*,
Troy Iron and Nail Factory, Troy, N. Y.

Etna Safety Fuse.

THIS superior article for igniting the charge in wet or dry blasting, made with DUPONT'S best powder, is kept for sale at the office and depot of

REYNOLDS & BROTHER,
☞ *Sole Manufacturers*, ☜
No. 85 Liberty St.
NEW YORK.

And in the principal cities and towns in the U. States.

☞ The Premium of the AMERICAN INSTITUTE was awarded to the *Etna Safety Fuse* at the late Fair held in this city.

November 3, 1849. 1y

COLUMBUS, OHIO,

Railroad Car Manufactory.

RIDGWAYS & KIMBALL,

HAVE established at this central point, the manufacture of Passenger, Freight, Gravel and Hand Cars for Railroads, and assure all Western Railroad Companies that it will be their constant aim to procure the best materials and workmen, and to turn out the best kind of work at fair prices. Specimens may be seen on the Columbus and Xenia Railroad. The patronage of Railroad Companies is respectfully solicited. 1y8

FOR SALE.

THREE LOCOMOTIVES, Manufactured by M. W. Baldwin, of 10 tons weight, all in complete repair, and now running on the Columbia and Philadelphia Railroad.

For particulars apply to A. L. Roumfort, Supt. of said road, either at Philadelphia, or Parkersburg, Chester county. A. L. ROUMFORT,
Supt. Motive Power Col. & Philad. R.R.

FAIRBANKS' RAILROAD SCALES.—THE subscribers are prepared to construct at short notice, *Railroad* and *Depot Scales*, of any desired length and capacity. Their long experience as manufacturers—their improvements in the construction of the various modifications, having reference to strength, durability, retention of adjustment, accuracy of weight and dispatch in weighing—and the long and severe tests to which their scales have been subjected—combine to ensure for these scales the universal confidence of the public.

No other scales are so extensively used upon railroads, either in the United States or Great Britain;—and the managers refer with confidence to the following in the United States.

Eastern Railroad.	Boston & Maine Railroad.
Providence Railroad.	Providence and Wor. Road.
Western Railroad.	Concord Railroad.
Old Colony Railroad.	Fitchburg Railroad.
Schenectady Railroad.	Syracuse and Utica Road.
Balt. and Ohio Railroad.	Baltimore and Susq. Road.
Phila. & Reading Road.	Schuylkill Valley Road.
Central (Ga.) Railroad.	Macon and Western Road.

New York and Erie Railroad.

And other principal Railroads in the Western, Middle and Southern States.

E. & T. FAIRBANKS & CO.
St. Johnsbury, Vt.

Agents, { FAIRBANKS & Co., 89 Water St., N. York. / A. B. NORRIS, 196 Market St. Philadelphia.

April 22, 1849. 1y*17

Hydraulic Cement.

KINGSTON LIME AND CEMENT CO.
OFFICE
271 PEARL-ST.
N. Y.

HYDRAULIC CEMENT, OF BEST QUALITY, manufactured at their works, for sale in lots to suit purchasers.

Also, Ground Lime, a superior article for Builders.

ISAAC FRYER, Sec'y.

January 19, 1850. 1y

NORRIS' LOCOMOTIVE WORKS, SCHENECTADY, N. Y.

THESE Works are in full operation in Manufacturing to order, Locomotive Steam Engines & Tenders, of the best principle and construction of material, using wrought iron heavy frames with pedestals welded thereto, and all parts of the engine made of the best wrought iron, except cylinders, pumps and boxes—obtaining greater durability, and carrying less weight over the road, than engines constructed of cast iron.

Wrought Iron Tires made any required size, and Tire Bars bent and welded with dispatch.

Chilled Wheels for Cars, Tucks and Tenders, made from the toughest iron.

Driving and Tender and Car Wheels fitted to Axles with Brass Boxes and Springs, and Railroad Machinery generally. Manufactured and for sale by

April 11, 1849. E. S. NORRIS.

CORROSIVE SUBLIMATE.

THIS article now extensively used for the preservation of timber, is manufactured and for sale by POWERS & WEIGHTMAN, manufacturing Chemists, Philadelphia.

Jan. 20, 1849.

Nashua Iron Co., NASHUA, NEW HAMPSHIRE.

MANUFACTURERS of Bowling, Pembroke and Lowmoor Locomotive Tires, Engine Frames, Crank and Car Axles, Wrought Iron Shafting of all sizes, Shapes of all descriptions used in Machine shops and upon Railways.

FRANKLIN MONROE, Treasurer.

Messrs. Fullerton & Raymond, Agents, Boston.
" Raymond & Fullerton, " New York.

Orders received by the Treasurer at Nashua, N.H., or by the Agents in Boston or New York.

CENTRAL RAILROAD FROM SAVANNAH TO MACON, (Ga.) 190¼ miles.

Passenger Trains leave Savannah and Macon daily at 7 a.m.

Passenger trains arrive daily at Savannah, 6 15 p.m.
" " " " Macon, 6 45 p.m.

This road, in connection with the Macon and Western road from Macon to Atlanta, and the Western and Atlantic road from Atlanta to Dalton, now forms a continuous line of 391¼ miles in length* from Savannah to Dalton, Murray county, Ga. and with the Memphis Branch railroad, and Stages connect with the following places:

Tickets from Savannah to Macon,		$5 75
" " "	Atlanta,	9 50
" " "	Augusta,	6 50
" " "	Columbus,	15 00
" " "	Opelika,†	17 00
" " "	Jacksonville, Ala.,	20 00
" " "	Talladega,	
" " "	Huntsville, Ala.,	22 00
" " "	Decatur,	
" " "	Tuscumbia, Ala.,	22 50
" " "	Tuscaloosa, Ala.,	
" " "	Columbus, Miss,	28 00
" " "	Aberdeen, "	
" " "	Holly Springs	
" " "	Nashville, Tenn.	
" " "	Murphreesboro'	25 00
" " "	Columbia, do.,	
" " "	Memphis, do.,	30 00

An extra Passenger Train leaves Savannah on Saturdays, after the arrival of the Steam-ships from New York, for Macon, and connects with the Macon and Western railroad; and on Tuesdays, after the arrival of the Macon and Western cars, an extra Passenger Train leaves Macon to connect with the Steam ships for New York.

Stages for Tallahasse and intermediate places connect with the road at Macon, Mondays, Wednesdays, and Fridays, and with Milledgeville at Gordon daily.

Passengers for Montgomery, Mobile and New Orleans take stage for Opelika from Barnesville through Columbus a distance of 97 miles, or from Griffin thro' West Point, a distance ot 93 miles.

* The Western and Atlantic railroad will soon be completed between Dalton and Chattanooga, a distance of 423¼ miles from Savannah, of which due notice will be given.

† Head of the West Point and Montgomery railroad, on which the fare to Montgomery is about $2.

RATES OF FREIGHT FOR MERCHANDIZE GENERALLY, FROM SAVANNAH TO MACON.

Measurement Goods.—Boxes of hats, bonnets, furniture, shoes, saddlery, dry-goods, and other measurement goods, per cubic foot - - 13 cents.
Crockery Ware, in crates, boxes or hhds, per cubic foot. - - - - 10 "
Goods by Weight, 1st class.—Boxes of glass, paints, drugs & confectionary, per 100 lbs., 50 "
2d class—Sugar, coffee, rope, butter, cheese, lard, tobacco, leather, hides, copper, sheet and hoop iron, tin, hard and hollow ware, rice, boxes soap and candles, bagging, and other heavy articles not enumerated below, per 100 lbs., - - - - 45 "
3d class—Flour, bacon, liquors, pork, beef, fish, tallow and beeswax, per 100 lbs., 40 "
4th class—Mill-gearing, pig and bar iron, grind and millstones, nails, spikes and coal, 100 lb. 30 "
Barrels of beets, bread, crackers, potatoes, ice, fruit, oysters, onions, and all light bbls, each, 75 "
Oil and molasses per hhd., (smaller casks in proportion) - - - $6 00 "
Salt per sack not exceeding 4 bushels, - 50 "

☞ Goods consigned to Thos. S. Wayne, Forwarding Agent, Savannah, will be forwarded free of commission.

WM. M. WADLEY, Supt.

Savannah, Ga., February 24, 1850.

ENGINEERS' AND SURVEYERS'
INSTRUMENTS MADE BY
EDMUND DRAPER,
Surviving partner of
STANCLIFFE & DRAPER.

No 23 Pear street, near Third, below Walnut, Philadelphia.

GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD, FROM ATLANTA TO DALTON, 100 MILES.

This Road, in connection with the South Carolina Railroad, and Western and Atlantic Railroad, now forms a continuous line, 408 miles in length, from Charleston to Dalton Cross Plains) in Murray county, Ga. 32 miles from Chattanooga, Tenn.

RATES OF FREIGHT.		Between Augusta and Dalton. 271 miles.	Between Charleston, and Dalton. 408 miles.
1st class	Boxes of Hats, Bonnets, and Furniture, per cubic foot - -	$0 18	$0 28
2d class	Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs, and Confectionary, per 100 lbs.	1 00	1 50
3d class	Sugar, Coffee, Liquor, Bagging, Rope, Cotton, Yarns Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow ware, Castings, Crockery, etc.	0 60	0 85
4th class	Flour Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc. - - -	0 40	0 65
	Cotton, per 100 lbs. -	0 45	0 70
	Molasses per hogshead -	8 50	13 50
	" " barrel - -	2 50	4 25
	Salt per bushel - -	0 18	
	Salt per Liverpool sack -	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows - -	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Company will be forwarded free of commissions. Freights payable at Dalton.

F. C. ARMS,
44*1y Sup't of Transportation.

CAR MANUFACTORY CINCINNATI, OHIO.

KECK & DAVENPORT WOULD RESPECTfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description. Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally.

Cincinnati, Ohio, Oct. 2, 1848. 44tf

NICOLL'S PATENT SAFETY SWITCH FOR Railroad Turnouts. This invention for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails; being laid down or removed without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two castings and two rails; the latter, even if much worn or used, not objectionable.

Working models of the Safety Switch may be seen at Messrs. Davenport, Bridges & Kirk's Cambridge Port, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained, on application to the Subscriber, Inventor and Patentee.

G. A. NICOLLS,
Reading, Pa.

FOWLER M. RAY'S
METALLIC INDIA RUBBER CAR SPRINGS.

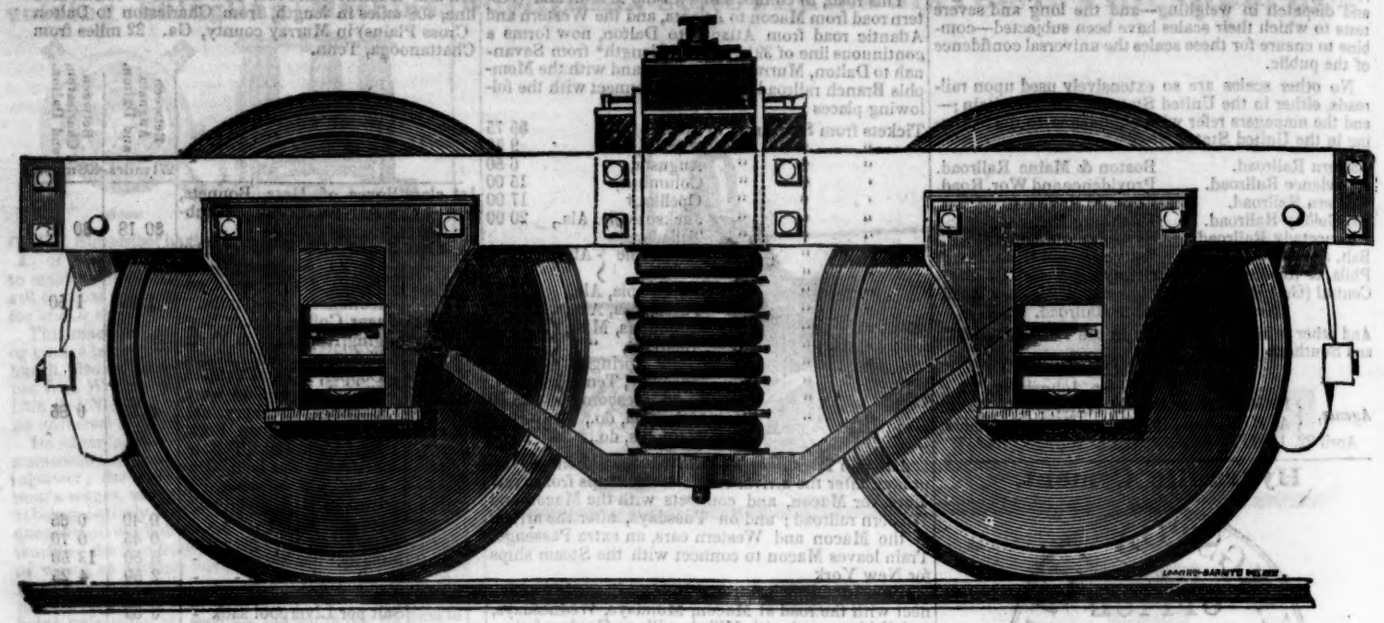


Fig. 1.

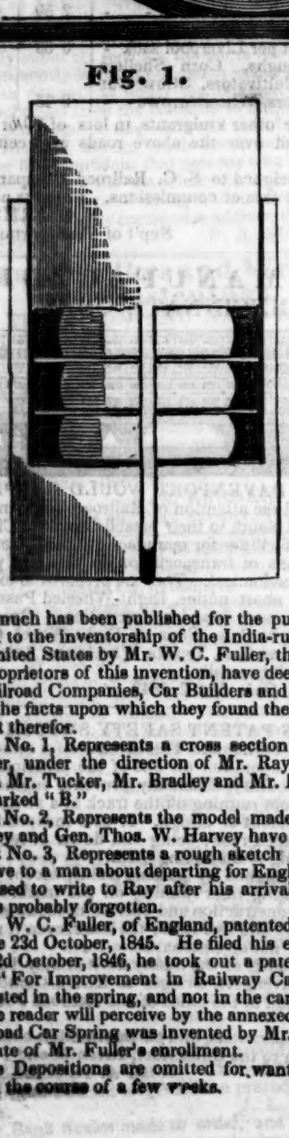


Fig. 2.

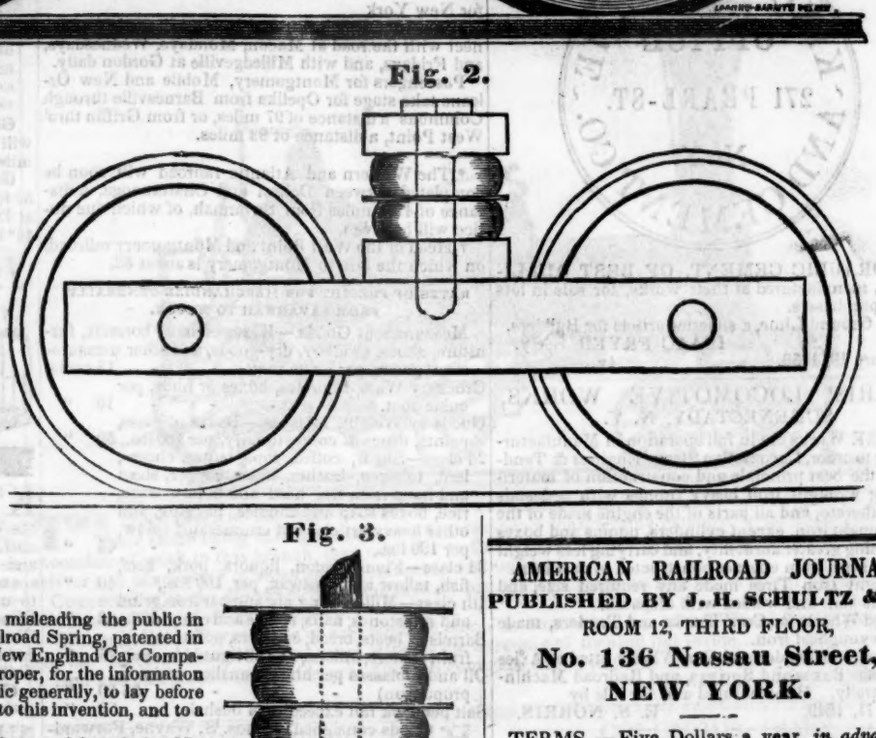
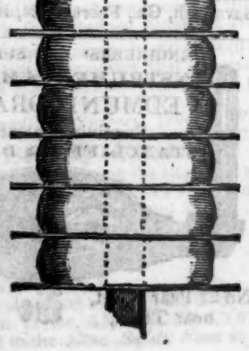


Fig. 3.



So much has been published for the purpose of misleading the public in regard to the inventorship of the India-rubber Railroad Spring, patented in the United States by Mr. W. C. Fuller, that the New England Car Company, proprietors of this invention, have deemed it proper, for the information of Railroad Companies, Car Builders and the public generally, to lay before them the facts upon which they found their claim to this invention, and to a Patent therefor.

Cut No. 1, Represents a cross section of the first model made by Mr. Tucker, under the direction of Mr. Ray, in the summer of 1844, and to which Mr. Tucker, Mr. Bradley and Mr. Bannester testify as being the model marked "B."

Cut No. 2, Represents the model made in 1845, to which Mr. Osgood Bradley and Gen. Thos. W. Harvey have testified.

Cut No. 3, Represents a rough sketch made by Mr. Ray in 1844, which he gave to a man about departing for England to take out some patents, who promised to write to Ray after his arrival in that country—which promise he has probably forgotten.

Mr. W. C. Fuller, of England, patented the above Spring in that country on the 23d October, 1845. He filed his enrollment April 23d, 1846, and on the 22d October, 1846, he took out a patent in the United States under the title, "For Improvement in Railway Carriages," when the improvement consisted in the spring, and not in the carriage.

The reader will perceive by the annexed testimony, that the India-rubber Railroad Car Spring was invented by Mr. Ray about two years previous to the date of Mr. Fuller's enrollment.

The Depositions are omitted for want of room, but will be published in full in the course of a few weeks.

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